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ABSTRACT

The Study of Education Resources and Federal Funding (SERFF) examined the allocation and use of funds provided to school districts and schools through the Goals 2000 and five of the largest Elementary and Secondary Education Act programs for fiscal year 1997, corresponding to the 1997-1998 school year. The six federal programs included in this study are: (1) Title I, Part A, grants to local education agencies to help disadvantaged children meet high standards; (2) Title II, the Eisenhower Professional Development Program; (3) Title III, the Technology Literacy Challenge Fund; (4) Title IV, state and local agency programs for safe and drug-free schools; (5) Title VI, innovative education program strategies; and (6) Goals 2000, state and local systemic improvement. These six programs accounted for 41 percent of total federal revenues for elementary and secondary education in 1997-1998. Four of the programs provided funding to a large majority of school districts through formula grants, and two offered competitive grants to a smaller number of districts. Data were collected from a national sample of 720 schools in 180 districts. The study examined the extent to which program funds were used for various strategies for improving student achievement, including professional development, technology, extended learning time, and schoolwide reform and improvement. The report also examines the targeting of federal program funds at the district and school levels, in comparison with the distribution of state and local funds. This final report also examines the share of Title I funds used for teachers, aides, technology, and professional development. Some conclusions about the use of these funds are drawn for each program. (Contains 142 exhibits.) (SLD)

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Study of Education Resources and Federal Funding:

FINAL REPORT

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STUDY OF EDUCATION RESOURCES AND FEDERAL FUNDING:

FINAL REPORT

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August 2000

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Study of Educational Resources and Federal Funding: Final Report Executive Summary

Background and Purpose

The enactment of the Goals 2000: Educate America Act and the 1994 reauthorization of the Elementary and Secondary Education Act (ESEA) brought important changes in the federal role in elementary and secondary education. Categorical programs were redesigned to provide more flexible support for educational improvement in a framework of challenging state standards, assessments aligned with those standards, and capacity building through sustained professional development in core academic subjects. Goals 2000 has supported state and local activities in developing aligned standards, assessments, curricula, teacher preparation, and professional development.

The Study of Education Resources and Federal Funding (SERFF) examines the allocation and use of funds provided to school districts and schools through Goals 2000 and five of the largest ESEA programs for FY 1997, which corresponds to the 1997-98 school year. The six federal programs included in this study are:

- Title I, Part A: Helping Disadvantaged Children Meet High Standards, Grants to LEAs
- Title II: Eisenhower Professional Development Program, Elementary and Secondary Programs
- Title III, Section 3132: Technology Literacy Challenge Fund
- Title IV: Safe and Drug-Free Schools and Communities, State and Local Agency Programs
- Title VI: Innovative Education Program Strategies
- Goals 2000: Educate America Act, State and Local Systemic Improvement

The study examines the extent to which program funds are used for various strategies for improving student achievement, including professional development, technology, extended learning time, and schoolwide reform and improvement. The report also examines the targeting of federal program funds at the district and school levels, in comparison with the distribution of state and local funds.

A preliminary report was released in July 1999; this final report presents a more comprehensive set of findings from the study, with additional information on targeting, the comparability of state and local resources in Title I and non-Title I schools, the uses of Title I funds at the district and school levels, and the impact of Title I funds on total resource levels in different types of Title I schools. The final report examines the share of Title I funds used for teachers, aides, technology, and professional development, comparing high- and low-poverty schools as well as in Title I schools overall. The final report also examines the financial contribution of Title I in comparison to state compensatory education programs.

Overview of the federal programs under study

The six programs in this study accounted for 41 percent of all federal revenues for elementary and secondary education for 1997-98 and 2.7 percent of total revenues for elementary and secondary education from all sources (federal, state, and local). Title I, Part A is by far the largest of the six programs ($7.3 billion), followed by Goals 2000 ($476 million), Title IV ($425 million), Title VI ($310 million), Title II ($260 million), and the Technology Literacy Challenge Fund ($200 million).

Four of the programs provide funding to a large majority of school districts through formula grants, while two provide competitive grants to a smaller number of districts. All 14,000 school districts are eligible to receive funds from Title II, Title IV, and Title VI, and Title I funds go to 12,900 districts (92 percent of the districts). In contrast, Goals 2000 provided competitive grants to 6,700 districts (47 percent) and Title III grants supported technology programs in 2,600 districts (18 percent).

Study design

Data were collected from a national sample of 720 schools in 180 districts during the 1997-98 school year.[1] The response rate was 81 percent for districts and 72 percent for schools. At the district level, the study included a questionnaire on the uses of funds from each of the programs in this study, and also collected information on expenditures from federal programs, personnel data, and Title I allocations to schools. At the school level, the study included a questionnaire on programs and resources available in the school, with a focus on Title I, professional development, and technology. Surveys of classroom teachers, Title I teachers, special education teachers, and Title I teachers' aides were also conducted. These surveys were distributed to "Title I" teachers and aides in both targeted assistance and schoolwide programs if they were identified by their schools as being paid through Title I funds. Information on the uses of Title I funds at the school level was also collected.

In addition, the study collected data from all 50 states on their suballocations of federal program funds to school districts in FY 1997. The study also analyzed data collected by the Census Bureau on the distribution of total federal, state, and local revenues for the 1994-95 school year.

Analyses of school and teacher level data in this report often examined differences between high- and low-poverty schools, elementary and secondary schools, Title I and non-Title I schools, and Title I schoolwide and targeted assistance programs. School poverty levels were based on the percentage of students eligible for the free and reduced-price lunch program. District poverty levels were based on census poverty data. The term "highest-poverty schools" was used to refer to schools where at least 75 percent of the students were eligible for free or reduced-price lunches. "High-poverty schools" included all schools at or above the 50 percent poverty level, and "low-poverty schools" included schools below 35 percent poverty.

[1] The sample of 180 school districts was drawn from a previous sample of more than 3,000 districts used for another Department of Education study, the District Implementation Study, which excluded districts with fewer than 300 students (Hannaway and Kimball (1997), Reports on Reform from the Field, Washington, DC: U.S. Department of Education). As a result, the estimates for the Study of Education Resources and Federal Funding are generalizable to the population of districts that have 300 or more students. Districts with fewer than 300 students account for a relatively large proportion of all districts (21 percent) but a very small proportion of students (less than 1 percent) (National Center for Education Statistics (2000), Digest of Education Statistics: 1999, Table 91).

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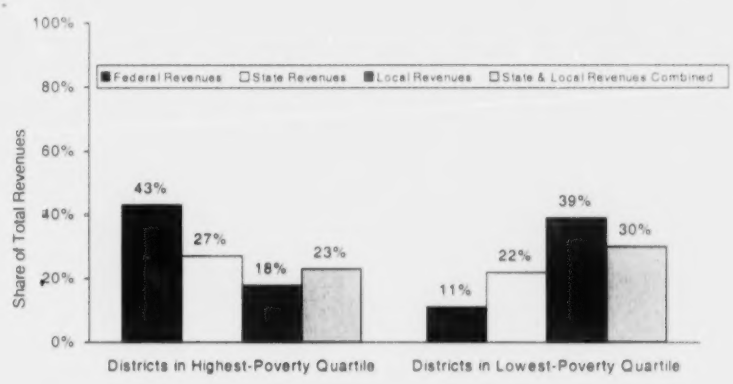
Targeting of Federal Funds

Each of the six federal education programs in this study has different priorities and provisions governing the allocation of funds among states, school districts, and other agencies. For all six programs, the Department of Education allocates funds to states in accordance with statutory formulas, and the states then suballocate the funds to school districts and other agencies eligible to receive the funds, either through formula (Titles I, II, IV, and VI) or through competitive grants (Title III and Goals 2000). The number of poor school-age children is a factor in allocations for five of the six programs.

Distribution of federal, state, and local revenues among high- and low-poverty districts

Federal education funds in general were much more targeted to high-poverty districts than were state and local funds. Districts in the highest-poverty quartile, which have 25 percent of the nation's school-age children and 49 percent of the nation's poor children, received 43 percent of federal funds but only 23 percent of state and local funds. In contrast, districts in the lowest-poverty quartile, which have 25 percent of all children and 7 percent of the poor children, received 11 percent of federal funds but 30 percent of state and local funds.

Exhibit 1
Distribution of Federal, State, and Local Revenues, by District Poverty Quartile, 1994-95



Highest-poverty quartile of districts contains 25% of the nation's students and 49% of the poor students
Lowest-poverty quartile of districts contains 25% of the nation's students and 7% of the poor students

Exhibit reads: **The highest-poverty school districts received 43 percent of all federal revenues, compared with only 23 percent of state and local revenues.**

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Although state revenues were somewhat targeted to high-poverty districts, they did not fully compensate for funding disparities related to the local property tax base. Districts in the highest-poverty quartile received 18 percent of local education revenues and 27 percent of state education revenues, but their share of state and local funds combined (23 percent) was still less than their share of school-age children (25 percent). Districts in the lowest-poverty quartile received 39 percent of local revenues, more than double the amount in the highest-poverty quartile.

Despite the higher level of federal support for the highest-poverty districts, total revenues per pupil in these districts were 10 percent lower than in the lowest-poverty districts. The highest-poverty districts had federal revenues of $692 per pupil and total revenues of $6,245 per pupil, while the lowest-poverty districts had federal revenues of $172 per pupil and total revenues of $6,958 per pupil.

Exhibit 2
Federal, State, and Local Revenues per Pupil, By District Poverty Quartile, 1994-95

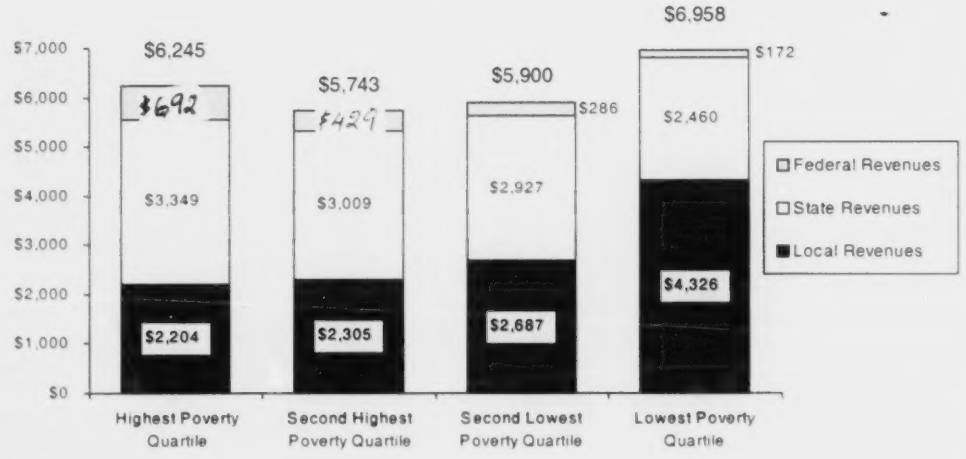

Exhibit reads: **Although federal revenues provided an additional $692 per pupil in the highest-poverty districts, compared with $172 in the lowest-poverty districts, the highest-poverty districts still received 10 percent less in total revenues per pupil ($6,248) compared with the lowest-poverty districts ($6,967).**

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In the poorest districts, federal funds accounted for 11.1 percent of district revenues, compared with only 2.5 percent in the lowest-poverty districts. Similarly, Title I provided 4.5 percent of total revenues in the poorest districts, compared with 0.7 percent in the lowest-poverty districts. Across all districts, federal funds comprised 6.3 percent and Title I comprised 2.4 percent of total revenues.

Exhibit 3
Share of School District Revenues Provided through Title I and All Federal Funds, by District Poverty Quartile, 1994-95

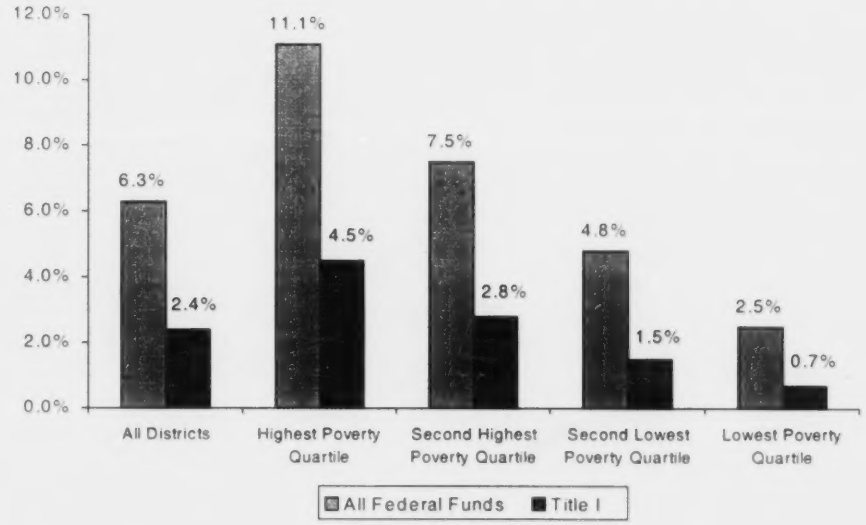

Exhibit reads: **In the highest-poverty districts, federal funds provided 11.1 percent of district revenues and Title I provided 4.5 percent—about twice as high as the national average for all districts (6.3 percent and 2.4 percent, respectively).**

Title I targeted the largest share of its funds to high-poverty districts, but other federal programs also targeted significant shares of funding to these districts. Districts in the highest-poverty quartile received one-half (50 percent) of Title I funds and about one-third of the funds from Title II (35 percent), Title III (36 percent), Title IV (33 percent), Title VI (34 percent), and Goals 2000 (33 percent). Districts in the lowest-poverty quartile received 8 percent of Title I funds and somewhat higher shares from Title II (17 percent), Title III (11 percent), Title IV (21 percent), Title VI (17 percent), and Goals 2000 (15 percent).

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Distribution of federal program funds by urbanicity

Rural districts received a relatively large share of the funds for competitive grants, while large urban districts received a share of these funds that was less than their share of school-age children and poor children. Rural districts received 21 percent of Goals 2000 funds and 26 percent of Title III funds, well above their share of school-age children (13 percent) and poor children (14 percent). In contrast, large urban districts received 16 percent of Goals 2000 funds and 15 percent of Title III funds, less than their share of school-age children (18 percent) and poor children (29 percent). The distribution of formula grants (Titles I, II, VI, and VI) among urban and rural districts was more closely related to the distribution of school-age children and poor children.

Impact of 1994 reauthorization on targeting

The 1994 reauthorization had little impact on district-level targeting. For all five programs in this study that existed in FY 1994, the distribution of funds among district poverty quartiles was virtually the same in FY 1997 as in FY 1994. For Title I, changes in district targeting provisions have had little impact on district-level targeting of Title I funds because most funds continue to flow through the Basic Grants formula. Funding for the more targeted Concentration Grant formula did increase substantially, but this formula still allocates only 14 percent of total funding. A new Targeted Grants formula created in the 1994 reauthorization would direct a greater share of the funds to the highest-poverty districts, but this formula has not been funded.

Title I targeting at the school level increased significantly after the 1994 reauthorization. In 1997-98, nearly all (96 percent) of the highest-poverty schools received Title I funds, up from 79 percent in 1993-94. In addition, low-poverty schools became less likely to receive Title I funds (28 percent in 1997-98, down from 49 percent in 1993-94).

School-level targeting of Title I funds

Data on Title I allocations to schools show a mixed picture of school-level targeting. On the one hand, the highest-poverty schools received most of the Title I allocations to schools in 1997-98, and their share of Title I funds was greater than their share of low-income children. The highest-poverty schools were much more likely to receive Title I funds than were low-poverty schools. However, low-poverty schools that did receive Title I funds received substantially higher allocations per low-income student than did high-poverty schools.

The highest-poverty schools received 46 percent of Title I funds allocated to schools in the 1997-98 school year – greater than their share of low-income students (33 percent). Schools with poverty of 50 percent or more received 73 percent of Title I funds. Low-poverty schools received 18 percent of the funds and accounted for 25 percent of low-income students.

Exhibit 4
Distribution of Title I Funds by School Poverty, Compared with the Distribution of All Students and Low-Income Students, 1997-98

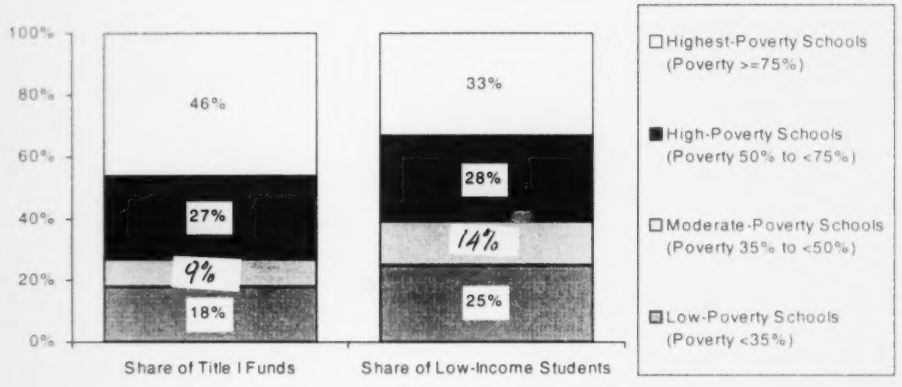

Exhibit reads: **The highest-poverty schools (over 75 percent low-income students) receive 46 percent of Title I allocations—greater than their share of low-income students (33 percent).**

High-poverty schools are much more likely to receive Title I funds than are low-poverty schools. Nearly all (96 percent) of the highest-poverty schools received Title I funds in 1997-98, compared with only 28 percent of low-poverty schools.

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Although low-poverty schools were less likely to receive Title I funds, those that did receive funding tended to receive substantially larger allocations per low-income student ($771) compared with the highest-poverty Title I schools ($475) and the average for all Title I schools ($472).

Exhibit 5
Average Title I School Allocations per Low-Income Student, by School Poverty Level and Grade Level, 1997-98

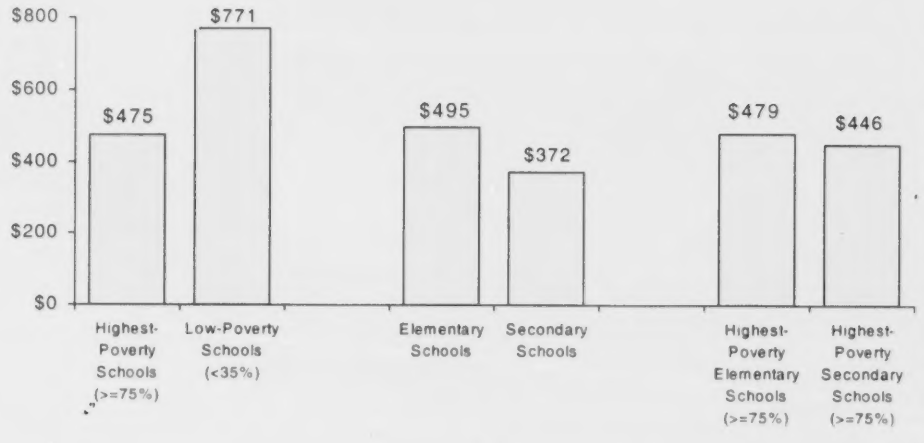

Exhibit reads: **Title I allocations per low-income student were lower in the highest-poverty Title I schools ($475) than in low-poverty Title I schools ($771).**

Secondary schools were less likely to receive Title I funds than elementary schools, and secondary schools that did receive Title I funds tended to receive smaller allocations than elementary schools ($372 and $495 per low-income student, respectively). As a result, the share of Title I allocations going to secondary schools (15 percent) was substantially less than their share of the nation's low-income students (33 percent).

The highest-poverty secondary schools, however, received allocations that were comparable in size to those in the highest-poverty elementary schools ($446 and $479 per low-income student, respectively). Moreover, changes made in the 1994 reauthorization resulted in a dramatic increase in the proportion of the highest-poverty secondary schools that receive Title I funds, from 61 percent in 1993-94 to 93 percent in 1997-98—about the same as the percentage of the highest-poverty elementary schools that received Title I funds in 1997-98 (95 percent).

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The above school allocation data underestimate total school-level spending for Title I, because 8 percent of Title I funds are used for districtwide programs and services related to instruction and instructional support—services that affect teachers and students in schools throughout the district, rather than being used for resources and services at the discretion of individual schools. In addition, because the allocation data are based on FY 1997 appropriations, the average allocation amounts may seem low compared to current (FY 2000) appropriations levels, which are 9 percent higher than in FY 1997. If the school allocation estimates are adjusted to take both of these factors into account, the average school funding level rises from $472 to $563 per low-income student for the 2000-2001 school year, and ranges from $567 in the highest-poverty schools to $920 in the lowest-poverty schools.

School-level targeting for other federal programs

For the other federal programs in this study, most districts used the funds for services for all schools in the district or for all schools (or teachers) that wanted to participate. Districts did not usually target these funds to schools with high concentrations of low-income students or low-achieving students. One-fourth of Goals 2000 coordinators reported that funds were targeted to schools with low student achievement, but this practice was less common for Title II (9 percent) and Title VI (4 percent). Some districts targeted Title II and Title VI funds to schools identified for improvement under Title I (14 percent of Title II districts and 11 percent of Title VI districts). About one-sixth (17 percent) of the districts targeted Title VI funds to schools that received fewer resources from other federal programs or other sources.

Comparison of Title I with state compensatory education programs

In states that had state compensatory education programs, Title I funds per poor student exceeded state compensatory education funds by more than one-third. Comparisons between Title I and state compensatory education programs are not straightforward due to ambiguity over which states have programs that can be classified as state compensatory education. However, according to two sets of data with different sets of states of reporting state compensatory education revenues, Title I provides about 35 percent to 40 percent more funds per student than the state programs (in states that have such programs). The difference between Title I and state programs in the level of funding would likely be greater if states that do not have compensatory education programs were taken into account.

The amount of funds provided through state compensatory education programs varied considerably across states, and in three states exceeded federal Title I funding. In some states, compensatory funds amounted to more than $1,000 per poor student, while other states provided less than $100 per poor student.

On average, state compensatory education funds were somewhat less targeted to high-poverty districts and schools than were Title I funds. Districts that were in the highest poverty quartile in their state received between 49 and 52 percent of total state compensatory funds, compared with a 54 to 55 percent share of Title I funds in those states reporting state compensatory funds. However, this pattern varied considerably across states, and the share received by the highest-poverty districts ranged from a high of 97 percent (in Minnesota) to a low of 21 percent (in Pennsylvania). At the school level, schools with poverty rates of 50 percent or higher accounted for 52 percent of the schools receiving state compensatory education funds, compared with 66 percent of Title I schools.

Allocation of Federal Funds between the District and School Levels

Funds for the six programs in this study may be used at the school or the district level for a variety of strategies for supporting teaching and learning. For Title I, districts allocate a substantial share of the resources to individual schools to permit them to design and implement programs that meet the needs of their specific student populations. In contrast, funds for the other five programs are primarily used for districtwide programs and services related to instruction and instructional support.

For Title I, districts allocated 83 percent of the funds to individual public schools and used an additional 1 percent for services for private school students. Districts used 8 percent of the funds to support districtwide programs and services related to instruction and instructional support, including teachers and support staff who serve more than one school, districtwide preschool and summer school programs, professional development, technology, and parent involvement programs. District-level expenditures on program administration accounted for 8 percent of Title I funds.

In contrast, most of the funds for Title II, Title IV, Title VI, and Goals 2000 were used for services and resources to enhance instruction and instructional support throughout the district, rather than being allocated to individual schools. This approach is not surprising, because districts receive much smaller allocations from these programs (e.g., an average of $87,000 for Goals 2000 and $18,000 for Title II) than from Title I ($521,000). While Title I funds may be of sufficient magnitude to be used for employing teachers or aides within individual schools, the smaller amounts of money that districts receive from these other programs may be used more effectively by leveraging dollars from other funding sources and supporting districtwide efforts to improve teaching and learning through professional development, increased access to technology, programs designed to reduce student violence and drug abuse, implementing standards and aligned assessments, and other strategies.

Across all six programs, district-level expenditures on program administration ranged from 4 to 9 percent of program funds. These funds primarily include salaries and benefits for district federal program coordinators and administrative support staff, as well as contributions to indirect costs.

Comparability of State and Local Resources in Title I and Non-Title I Schools

The Title I statute requires that districts provide comparable levels of state and local resources to their Title I schools as to their non-Title I schools. This study takes a broader view of the comparability issue, examining the comparability of non-Title I resources across Title I and non-Title I schools nationally (not just within districts), as well as across high- and low-poverty schools.

Across all schools, the base amount of non-Title I expenditures on school staff was about the same in Title I and non-Title I schools ($3,664 and $3,620 per pupil, respectively). At the elementary level, Title I schools spent 5 percent less than non-Title I schools, while at the secondary level, Title I schools spent 7 percent more.

At the elementary level, differences in the comparability of personnel expenditure levels were greater between high- and low-poverty schools than between Title I and non-Title I schools. Before Title I funds were added, Title I elementary schools had slightly lower personnel expenditures ($3,611 per pupil) than non-Title I schools ($3,807)—a 5 percent difference. The highest-poverty elementary schools spent 7 percent less ($3,556) than low-poverty elementary schools ($3,822). The difference is greatest when comparing high- and low-poverty Title I schools—the highest-poverty Title I schools had 10 percent less ($3,553) than low-poverty Title I schools ($3,942).

Exhibit 6
Comparability of Non-Title I Resources: School-Level Personnel Expenditures Per Pupil in Elementary Schools in 1997-98

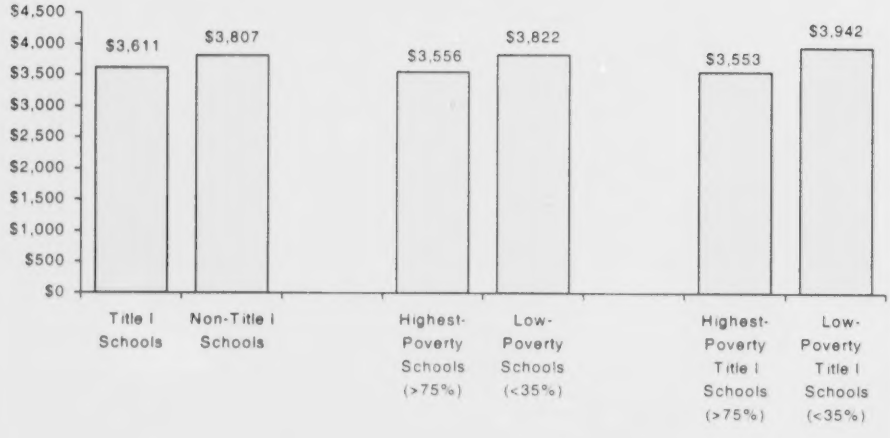

Exhibit reads: **Before Title I funds were added, personnel expenditures in Title I elementary schools ($3,611) were 5 percent lower than in non-Title I schools ($3,807).**

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Despite their lower spending on personnel, the highest-poverty elementary schools had more teachers compared with low-poverty schools, resulting in lower class sizes. However, teachers in the highest-poverty schools earned lower salaries, had fewer years of experience, and were less likely to hold an advanced degree. Teacher salaries were 14 percent lower in the highest-poverty elementary schools ($35,115) than in low-poverty schools ($40,839).

Exhibit 7
Comparability of Staffing in
High- and Low-Poverty Elementary Schools, 1997-98

	Highest-Poverty Schools (Poverty ≥75%)	Low-Poverty Schools (Poverty <35%)
Spending on School Personnel	$3,556	$3,822
Average Class Size*	21.1	22.9
Average Teacher Salary	$35,115	$40,839
Average Years Teaching Experience	13.3 years	15.5 years
Percentage of Teachers with Masters Degree or Higher	37%	49%

* Average class size data include self-contained special education classrooms.

Exhibit reads: **The highest-poverty schools had smaller average class sizes than low-poverty schools; however, teachers in the highest-poverty schools received lower average salaries.**

Use of Title I Resources to Improve Educational Opportunities for At-Risk Students

Title I, Part A, the largest federal education program, provided $7.1 billion in FY 1997 to support district and school efforts to help disadvantaged children meet high standards. **Most Title I funds are used for instruction, supporting the hiring of additional teachers and instructional aides, providing instructional materials and computers, and supporting other instructional services and resources.** Overall, three-fourths (77 percent) of Title I funds were spent on instruction, with an additional 12 percent used for instructional support and 12 percent used for program administration and indirect costs. Title I spending on instruction amounted to an estimated $5.5 billion for the 1997-98 school year, including $3.3 billion spent on teachers (47 percent of total Title I expenditures) and $1.0 billion on instructional aides (15 percent).

Exhibit 8
Use of Title I Funds for Instruction, Instructional Support, and Program Administration, 1997-98

	Total Expenditures ($ in millions)	Share of Total Expenditures
Instruction	**$5,473**	**77%**
Teachers	$3,342	47%
Teacher Aides	$1,043	15%
Instructional Materials	$468	7%
Instructional Technology	$287	4%
Other Instructional Expenditures	$333	5%
Instructional Support	**$822**	**12%**
Professional Development	$212	3%
Other Instructional Support	$610	9%
Program Administration	**$835**	**12%**
District Administration	$594	8%
School Administration	$241	3%

Note: Total components may not add to totals due to rounding.

Exhibit reads: **Title I spending on instruction amounted to $5.473 billion in the 1997-98 school year—77 percent of total Title I funds.**

Comparing the above Title I expenditure data to school district expenditure data collected by the National Center of Education Statistics indicates that the share of funds used for instruction is greater for Title I (77 percent) than for school district expenditures overall (62 percent). The share of funds used for instructional support appears somewhat larger under Title I (12 percent) than for district expenditures overall (9 percent), while the share used for administration appears similar for Title I (12 percent)

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and district expenditures overall (11 percent). The remaining school district expenditures were used for building operation and maintenance (10 percent), transportation (4 percent), and food services (4 percent).

Schoolwide programs accounted for nearly half (45 percent) of Title I schools and an even higher share (60 percent) of the funds. More than four-fifths (82 percent) of Title I schools that were eligible to operate schoolwide programs were doing so, and an additional 12 percent were considering doing so.

What Title I adds to school resource levels

Overall, Title I provided an additional $472 per low-income student in Title I schools. Title I allocations per low-income student were substantially higher in low-poverty schools ($771) than in higher-poverty schools ($475).

Title I funds added 6 percent to total personnel expenditures in Title I schools, or $236 per student (total enrollment). If the Title I funds are calculated in terms of low-income students, then the amount added by Title I equaled $434 per low-income student—a 12 percent increase over the non-Title I base. In terms of funding per Title I participant, the amount Title I added to school staffing averaged $412 per Title I participant—a 11 percent increase over the base. (This analysis assumes that schools spend the same amount of non-Title I resources on low-income students and Title I participants that they spend on the average student.)

Exhibit 9
Amount that Title I Added to School-Level Personnel Expenditures in Title I Schools, 1997-98

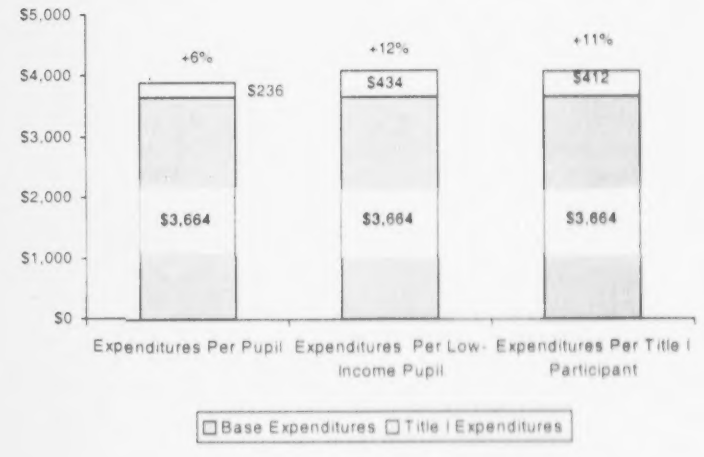

Exhibit reads: **The amount that Title I funds added to personnel expenditures amounted to $236 per pupil (a 6 percent increase), $434 per low-income student (a 12 percent increase), and $412 per Title I participant (a 11 percent increase).**

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In terms of total school personnel expenditures, Title I funds added more resources in the highest-poverty Title I schools than in low-poverty Title I schools. The increase in total personnel expenditures that resulted from Title I funds was 10 percent in the highest-poverty elementary schools ($355 per pupil), compared with 6 percent in low-poverty elementary schools ($247 per pupil).

However, in terms of funding per low-income student, the story was reversed: Title I resources caused a much greater addition to funding per low-income student in low-poverty Title I schools. The amount that Title I added to personnel expenditures resulted in 26 percent higher personnel expenditures per low-income student in low-poverty elementary schools ($1,035), compared with a 12 percent increase in the highest-poverty elementary schools ($415 per pupil).

Exhibit 10
Amount that Title I Added to School-Level Personnel Expenditures in High- and Low-Poverty Title I Elementary Schools, 1997-98

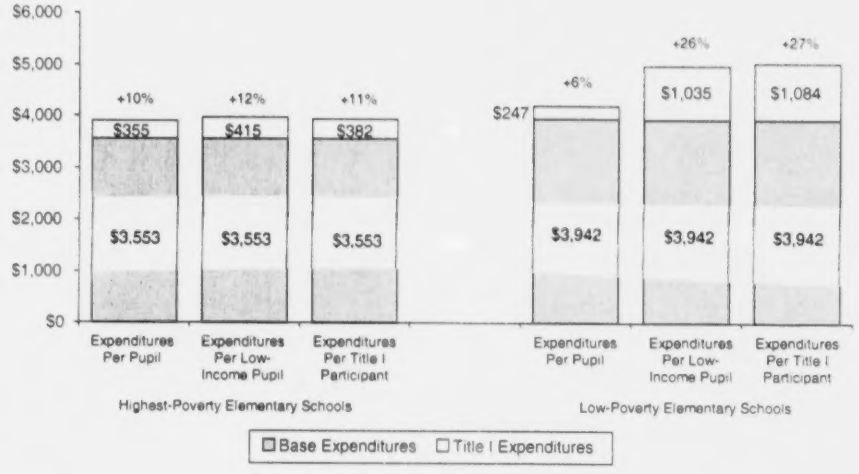

Exhibit reads: **Title I funds added more to expenditures per pupil in the highest-poverty elementary schools (a 10 percent increase) than in low-poverty schools (6 percent). However, low-poverty Title I schools experienced a greater increase in expenditures per low-income student (26 percent) and per Title I participant (27 percent).**

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Similarly, the amount that Title I added per Title I participant was much higher in the low-poverty Title I schools (27 percent) than in the highest-poverty Title I schools (11 percent). Most of the highest-poverty schools use Title I funds for schoolwide programs, in which all students are counted as Title I participants, while low-poverty schools use Title I funds for targeted assistance programs that serve only the lowest-achieving students.

The total number of full-time staff added to a typical-size Title I elementary school with 500 students amounted to 4.4 additional full-time equivalent (FTE) staff, including 2.1 FTE additional teachers, 1.9 FTE additional teacher aides, and 0.5 FTE additional noninstructional staff. In secondary Title I schools, using the same standardized enrollment level of 500 students, Title I added a smaller number of FTE staff (1.9), consisting of 0.6 FTE teachers, 0.7 FTE teacher aides, and 0.6 FTE noninstructional staff.

Use of Title I funds for teachers and teacher aides

Teacher aides accounted for half of Title I-funded instructional staff, although they accounted for only 15 percent of total Title I expenditures and 24 percent of spending on instructional staff. The average annual salary for an FTE teacher aide ($12,627) is about 35 percent of the average salary for a Title I teacher ($36,427).

Exhibit 11
Use of Title I Funds for Teachers and Teacher Aides, 1997-98

	Teachers	Teacher Aides
Total Full-Time Equivalent (FTE) Staff	66,002	65,555
Percent of Instructional Staff	50%	50%
Percent of Title I Expenditures on Instructional Staff	76%	24%
Percent of Total Title I Expenditures	47%	15%
Average Annual Salary per FTE	$36,427	$12,627

Exhibit reads: **Teachers account for about half of Title I instructional staff but 76 percent of spending on instructional staff.**

Paraprofessionals were used in many Title I schools for teaching and helping to teach students, although their educational backgrounds did not qualify many of them for such responsibilities. Title I teacher aides reported that 60 percent of their time, on average, was spent on teaching or helping to teach students. Moreover, 41 percent of Title I teacher aides reported that half or more of the time they spent teaching or helping to teach students was on their own, without a teacher present, and 76 percent spent at least some time teaching without a teacher present. Although 99 percent of Title I teacher aides had a high school diploma or a GED, only 25 percent (and 10 percent in the highest-poverty schools) had a bachelor's degree.

Exhibit 12
Amount of the Time that Title I Teacher Aides Spent Teaching or Helping to Teach Students that Was on Their Own, Without a Teacher Present, 1997-98

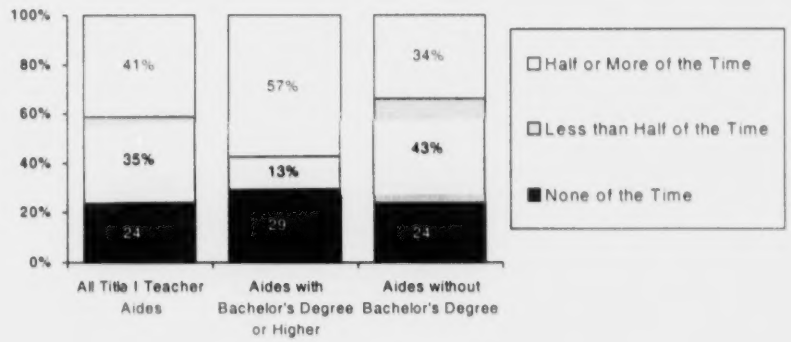

Exhibit reads: **Forty-one percent of Title I teacher aides reported that half or more of the time they spent teaching or helping to teach students was on their own, without a teacher present.**

Title I teachers spent two-thirds of their time working with students. Title I teachers reported that they spent 66 percent of their time in instructional activities. This instructional time was primarily spent in resource rooms (i.e., pullout) and departmentalized classes, which accounted for 49 percent of their time. Title I teachers spent 14 percent of their time teaching students in in-class settings, and another 3 percent on informal tutoring. The remaining time was used for planning, preparation, and grading (19 percent of total time); consulting with other staff (6 percent); interacting with parents (3 percent); and administrative duties (6 percent).

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Preschool and Extended Learning Time Programs

Districts and schools often seek to increase instructional time for students—particularly at-risk students—through preschool programs that help prepare students for their subsequent schooling experiences; programs that provide additional instructional time during the regular school year (before school, after school, and on the weekends); and summer school programs that provide additional instruction outside of the normal school year.

Preschool programs were offered in one-third (32 percent) of all elementary schools and enrolled 9 percent of the estimated preschool-age population. Preschool programs were much more prevalent in the highest-poverty schools (61 percent) than in low-poverty schools (14 percent) and also served a higher proportion of the preschool-age population in the highest-poverty schools (24 percent, compared with 3 percent in the low-poverty schools).

Nearly two-thirds (63 percent) of all schools offered extended-time instructional or tutorial programs during the school year through before-school, after-school, or weekend programs. Secondary schools were more likely to offer extended-time programs (79 percent) than elementary schools (54 percent).

High-poverty schools were more likely than low-poverty schools to offer extended-time instructional programs, and this difference was particularly pronounced at the elementary school level. Overall, three-fourths (75 percent) of the highest-poverty schools offered extended-time programs, compared with 56 percent of the lowest-poverty schools. At the elementary level, 74 percent of the highest-poverty elementary schools offered extended-time programs, compared with only 36 percent of the lowest-poverty elementary schools. Similarly, extended-time programs were offered in 75 percent of elementary schools with Title I schoolwide programs, compared with 48 percent of elementary targeted assistance schools and 38 percent on non-Title I elementary schools. One-fourth (23 percent) of Title I targeted assistance schools reported that their use of extended-time programs had increased since the 1993-94 school year.

After-school instructional programs were more widely used than before-school or weekend programs for instruction during the school year. At the elementary level, 48 percent of schools offered after-school programs, 15 percent offered before-school programs, and 2 percent offered weekend programs. Among secondary schools, 73 percent offered after-school programs, 34 percent offered before-school programs, and 14 percent offered weekend programs.

Extended-time instructional programs served a relatively small percentage of students: 11 percent of the students in schools offering extended-time programs and 7 percent of students in all schools. However, the percentage of students served was higher in the highest-poverty schools (14 percent of all students in these schools). Extended-time instructional programs added an average of 116 hours of additional instructional time during the school year—about a 10 percent increase in instructional time for participating students.

Exhibit 13
Availability of Extended Time Instructional Programs Offered during the School Year, 1997–1998

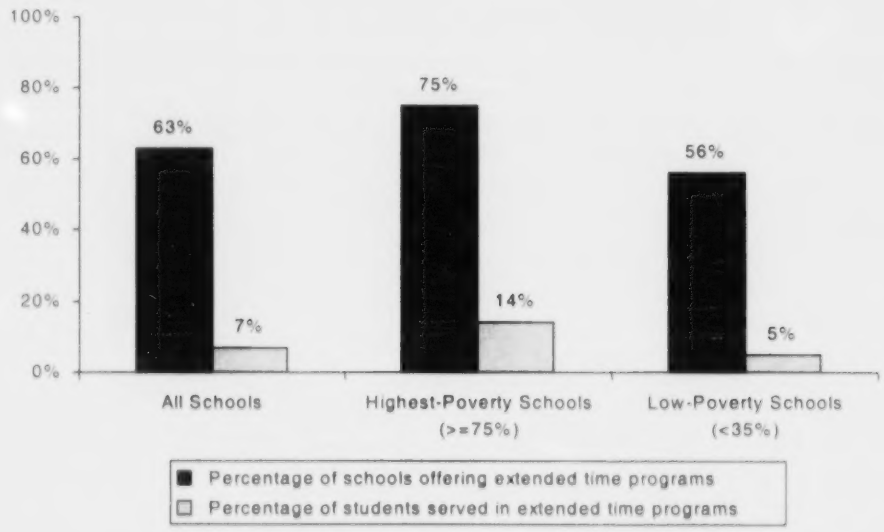

Exhibit reads: **Nearly two-thirds of all schools (63 percent) offered before-school, after-school, or weekend instructional programs, but these programs served only 7 percent of all students.**

Summer school programs were offered in 56 percent of all schools and served somewhat higher percentages of the students (14 percent), compared with extended-time programs during the school year (7 percent). Secondary schools were more likely to offer summer school (66 percent) than were elementary schools (51 percent). At the elementary level, summer programs were more prevalent in the highest-poverty schools and in Title I schools.

Improving the Skills and Knowledge of Teachers

Five ESEA programs and Goals 2000 provided an estimated $785 million for the 1997-98 school year to support professional development to improve the skills of teachers and other staff. The Title II Eisenhower Program provided a total of $294 million through elementary/secondary grants to school districts ($244 million) and grants to institutions of higher education ($50 million). Title I expenditures on professional development at the district and school levels amounted to $212 million, and Goals 2000 expenditures amounted to $189 million. Districts also used Title VI ($45 million) and Title IV ($45 million) for professional development activities.

Exhibit 14
Financial Contribution of Six Federal Programs to Funding for Professional Development, 1997-98

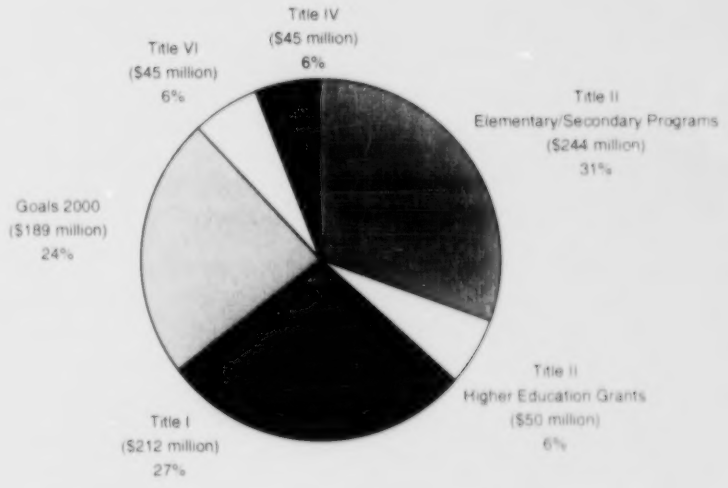

Exhibit reads: **District and school spending on professional development from Title I funds amounted to $212 million in the 1997-98 school year—27 percent of total support for professional development from the programs in this study.**

Note: Title II Higher Education Grants are included in this exhibit in order to provide a more complete picture of federal funds available for technology, although this program is not otherwise included in this study.

Few districts were able to provide information on their total spending on professional development. In the 19 districts that did provide this information, federal programs provided 28 percent of total funds used for professional development. State categorical programs also provided substantial support for professional development in these districts (21 percent); most of the remaining funds came from the district's general fund (47 percent).

Topics of professional development supported by federal programs were generally aligned with the purpose of the programs. Professional development focused on curriculum or instruction specific to reading or language arts was the highest priority for Title I directors. Goals 2000 funds predominantly supported activities related to content or performance standards, enabling students to meet proficiency standards, and assessments linked to standards. Title II funds were most often used for activities focused on math and science curriculum and instruction, followed by content and performance standards.

Teachers participated in professional development activities focused on specific content areas such as mathematics or reading more than any other topic. Classroom teachers reported participating in 13 hours of professional development on this topic in the 1997-98 school year (23 hours for teachers in the highest-poverty schools). Other activities included parent or community involvement (7 hours), teaching academically, ethnically, or linguistically diverse learners (7 hours), integrating technology into instruction (6 hours), developing teachers skills in using technology (5 hours), and content or performance standards (5 hours).

Workshops, conferences, and institutes were the most prevalent type of professional development activity. Teachers were far more likely to attend workshops, conferences, or institutes than participate in any other professional development activity, and nearly all schools and districts reported supporting teachers' attendance at these activities.

Many teachers also reported some participation in less traditional and more collaborative forms of professional development. Teachers spent an average of 25 hours on planning lessons or courses with other teachers, 8 hours on developing curriculum, 7 hours on developing content standards or student assessments, and 3 hours observing other teachers in their classrooms. While many schools and districts reported supporting teacher involvement in collaborative work, few teachers reported receiving release time to participate in these activities.

Districts varied in how they made decisions about the use of professional development funds in general and Title II funds in particular. District curriculum administrators were primary decisionmakers about the use of all professional development and Title II funds in more than half of the districts (55 percent and 54 percent, respectively), while Title II coordinators were primary decisionmakers in just under half of the districts (45 percent and 46 percent, respectively). Districts most often cited student performance data and assessment of teacher needs as factors that were extremely influential in making decisions about the use of these funds.

Increasing Access to Technology

Four ESEA programs and Goals 2000 provided funding for increased access to technology in school districts and schools that amounted to an estimated $688 million for the 1997-98 school year. Two programs focused on education technology, the Technology Literacy Challenge Fund and Technology Innovation Challenge Grants, provided $244 million (35 percent of the total amount provided through these five programs). District and school spending on technology from Title I amounted to $287 million, more than the funds provided through the two technology-focused programs. Significant support for education technology also came from Goals 2000 ($85 million) and Title VI ($72 million).

Exhibit 15
Financial Contribution of Five Federal Programs to Funding for Technology, 1997-98

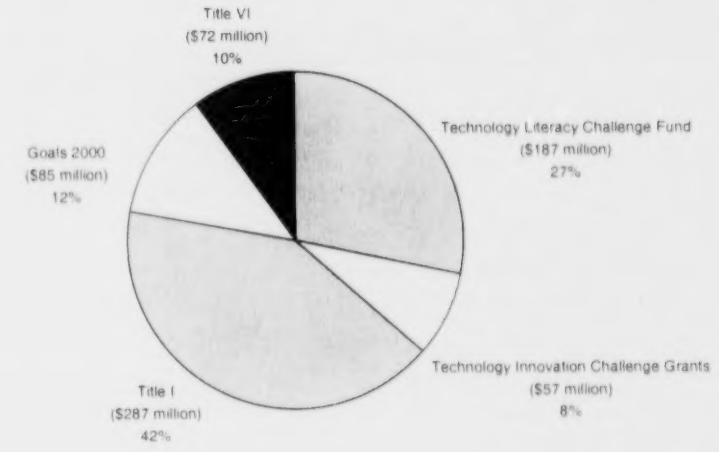

Exhibit reads: **District and school spending on technology from Title I funds amounted to $287 million in the 1997-98 school year—more than the funds provided through the Technology Literacy Challenge Fund and Technology Innovation Challenge Grants.**

Note: Technology Innovation Challenge Grants are included in this exhibit in order to provide a more complete picture of federal funds available for technology, although this program is not otherwise included in this study.

Districts used technology funds primarily to purchase computers and provide professional development related to using technology. Most districts reported using these funds "a great deal" to increase teachers' and students' access to computers (84 and 83 percent of districts, respectively), to develop teachers' skills in using technology (75 percent), to integrate technology into classroom instruction (72 percent), and to increase students' access to the Internet (71 percent).

Federal funds paid for one-fourth (24 percent) of the new computers that schools received during the 1997-98 school year, and half of these were purchased with Title I funds (13 percent). State and local funds paid for two-thirds (66 percent) of the new computers, and private sources (which may include parent-teacher associations, businesses, and foundations) provided 10 percent of the new computers. In elementary schools, federal funds were even more significant, paying for 34 percent of the new computers (with 21 percent purchased with Title I funds).

Federal funds were a much more significant source of support for new computers in high-poverty schools. In the highest-poverty elementary schools, Title I funds alone paid for 33 percent of the new computers and federal funds from all sources paid for 58 percent of the new computers. In contrast, low-poverty elementary schools received a relatively small proportion of their new computers either from Title I (5 percent) or from federal funds overall (10 percent).

Exhibit 16
Average Number of New Computers that Elementary Schools Received in 1997-98, From Various Sources, Per School of 500 Students

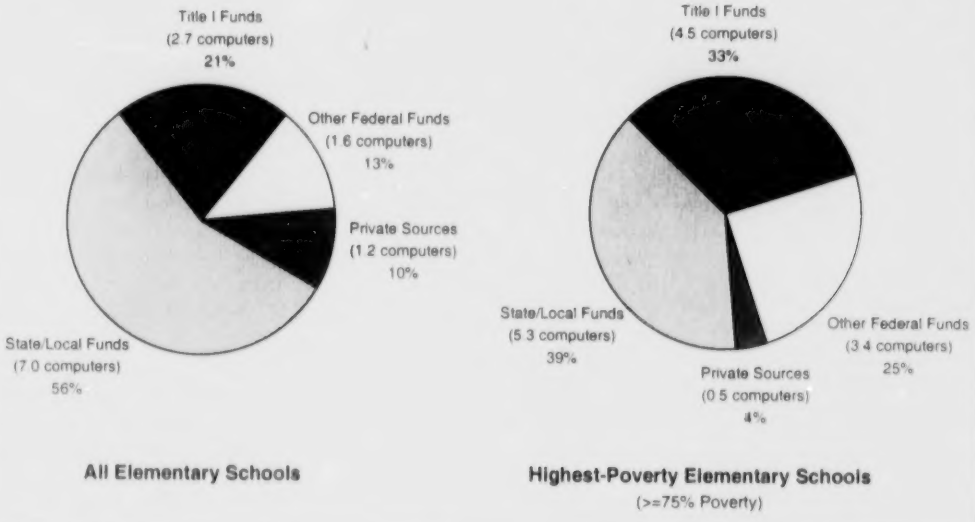

Exhibit reads: **In the highest-poverty elementary schools, Title I and other federal funds paid for 58 percent of the new computers received in 1997-98, compared with 34 percent of the new computers in elementary schools overall.**

In the 1997-98 school year, the highest-poverty schools received more new computers than did low-poverty schools. In a typical-size elementary school of 500 students, the highest-poverty schools received 13.7 new computers, compared to 9.1 new computers in low-poverty schools. The highest-poverty schools received fewer new computers from state and local funds and private sources but more from Title I and other federal funds.

Overall, however, high-poverty schools had less access to technology than low-poverty schools in terms of the quantity, quality, and connectivity of computers. The highest-poverty schools had only one computer for every 17 students, while low-poverty schools had one computer for every 12 students. Computers in the highest-poverty elementary schools were less likely to be more advanced multimedia computers (40 percent of computers, vs. 52 percent in low-poverty schools) or to be connected to the Internet (22 percent vs. 34 percent).

Most teachers reported that their lessons required students to use computers, but relatively few incorporated use of computers on a daily basis (28 percent of elementary classroom teachers and 8 percent of secondary classroom teachers).

Teachers typically did not integrate use of the Internet into instructional activities. About 62 percent of elementary and 71 percent of secondary classroom teachers reported that their lessons "never" or "hardly ever" required students to use the Internet.

A major barrier to effective use of technology was insufficient teacher understanding of ways to integrate technology into the curriculum, according to 70 percent of school principals and 45 percent of classroom teachers. However, teachers were more likely to express concern about an insufficient number of computers, lack of software integrated with the school's curriculum, and insufficient technical support. To address the knowledge barrier, more than 91 percent of districts indicated that professional development had focused "a great deal" on developing teachers' skills in using technology.

Standards-Based Reform and the Goals 2000 Program

The Goals 2000 program provided $476 million in FY 1997 funds to promote systemic educational reform, primarily by supporting the development and implementation of state and district content and student performance standards. Districts sometimes targeted Goals 2000 funds to schools with low student achievement (23 percent), but more often used the funds to serve all schools in the district (35 percent) or all schools or teachers who wished to participate (39 percent).

Districts most commonly used Goals 2000 funds to improve teachers' ability to teach to high standards. Most districts (89 percent) used Goals 2000 funds "a great deal" to provide professional development linked to standards. About three-quarters of the districts used the funds "a great deal" for aligning curriculum and instruction with standards (76 percent) or for developing assessments linked to standards (70 percent).

Exhibit reads: **Eighty-nine percent of districts reported using Goals 2000 funds "a great deal" for professional development linked to standards.**

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Professional development supported with Goals 2000 funds most commonly addressed state or district content or performance standards and enabling students to meet state or district proficiency standards—each topic supported "a great deal" by 71 percent of districts. Other topics frequently supported include assessments linked to standards (46 percent), curriculum and instruction specific to reading or language arts (40 percent), and teaching academically, ethnically, or linguistically diverse learners (39 percent).

Goals 2000 administrators and district curriculum and instructional administrators were the primary decisionmakers about the allocation and use of Goals 2000 funds. Nonetheless, decisions were made collaboratively: almost half of district Goals 2000 coordinators (44 percent) reported that decisions about the use of funds were made jointly by districts and schools, while almost one-third of the districts (29 percent) reported making decisions at the district level but with input from schools.

Almost three-quarters of districts (71 percent) reported that the long-term district plan was "extremely influential" in making decisions about the use of Goals 2000 funds. More than half of the districts (56 percent) reported that student performance data was "extremely influential" in making decisions about the use of Goals 2000 funds.

Title VI - Innovative Education Program Strategies

The Title VI program provided $310 million in FY 1997 to support local innovative educational strategies. Resources and services were widely distributed to schools within each district and were generally not targeted to schools based on poverty or student achievement. Forty-three percent of districts provided resources or services to all schools in the district and another quarter provided these resources to all schools or teachers wishing to participate in the program.

Title VI funds were most often used to acquire educational materials, including library materials and software. Fifty-eight percent of districts used funds "a great deal" for this purpose, followed by expanding the use of technology (39 percent) and providing supplemental targeted academic services (34 percent).

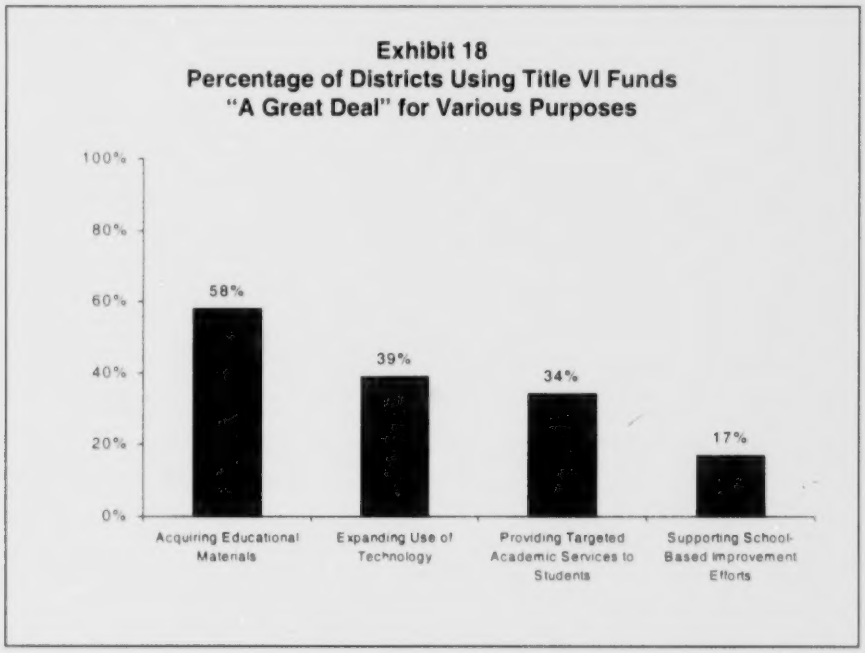

Exhibit reads: **Fifty-eight percent of districts reported using Title VI funds "a great deal" for acquiring educational materials.**

Title VI funds were less likely than Goals 2000 or Title I funds to be used for activities related to implementing standards, such as aligning curriculum and instructional materials with standards (13 percent) or professional development linked to standards (13 percent).

Larger districts were more likely to use Title VI funds for professional development activities than were smaller districts. Although only 13 percent of all Title VI districts reported using funds for professional development, these districts enrolled 33 percent of all students. The most commonly supported topics were district or state performance standards, enabling students to meet state or district proficiency standards, building partnerships with parents and community, and reading/language arts curriculum or instruction.

When making decisions about how to use Title VI funds, districts were more likely to be influenced by long-term district plans (52 percent) and priorities of individual schools (52 percent) than by state policies (21 percent). About a quarter of districts cited student performance data (28 percent) and research showing that particular program models work well (24 percent) as factors that were "extremely influential" in making decisions about the use of Title VI funds.

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Safe and Drug-Free Schools and Communities

Title IV, the Safe and Drug-Free Schools and Communities program, provided $425 million in FY 1997 to support school districts' efforts to prevent violence and the use of alcohol, tobacco, and drugs in and around schools. In addition, Title IV funds administered by governors' offices provided an additional $106 million to serve children and youth not normally served by school districts and populations that need special services (such as runaway or homeless children, dropouts, teen parents, and youths in detention facilities); these funds are not primarily granted to school districts and thus were not included in this study.

The clear priority for districts was to use Title IV funds for strategies that affected student attitudes. Most districts (83 percent) reported using funds "a great deal" to affect student attitudes related to drugs or violence. Districts also used Title IV funds to strengthen school communities through improving staff knowledge and skills (47 percent) and through building partnerships with parents and the community (26 percent of districts, enrolling 44 percent of students). Given the statute's 20 percent cap on the amount that districts may use for security hardware and personnel, it is not surprising that few districts (4 percent) used funds "a great deal" to improve school security.

Exhibit 19
Percentage of Districts Using Title IV Funds "A Great Deal" for Various Purposes

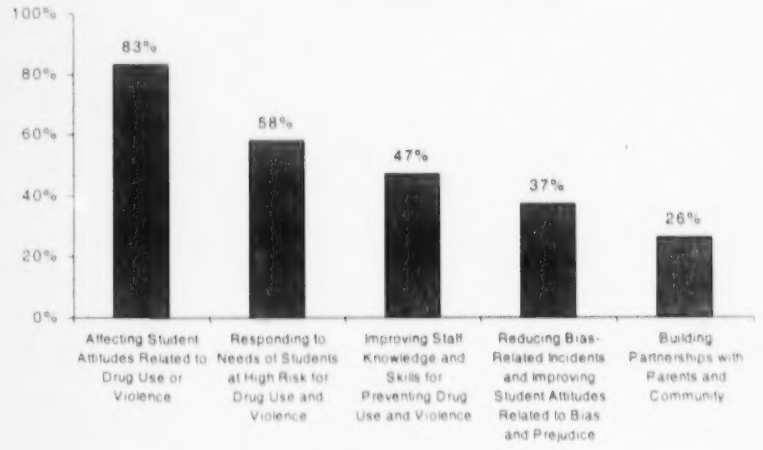

Exhibit reads: **Eighty-three percent of districts reported using Title IV funds "a great deal" for affecting student attitudes related to drug use or violence.**

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Title IV funds were used widely to support professional development activities. About half of the districts (53 percent) used these funds for professional development activities focused "a great deal" on preventing alcohol, tobacco, and other drug use and violence among students. A quarter of the districts (enrolling 40 percent of all students) used Title IV funds for professional development focused "a great deal" on building partnerships with parents and communities.

Title IV funds also supported student participation in drug and violence prevention efforts. Three-fourths of districts (74 percent) used Title IV funds to enable students to attend specialized training in drug and violence prevention. Many districts also used these funds to teach students how to serve as instructors or peer leaders in school-based projects related to drug and violence prevention (57 percent) or to support student participation in school committees, panels, or councils (48 percent).

Long-term district plans were most often reported as being "extremely influential" in making such decisions about the use of Title IV funds. Half of the districts (52 percent) reported being "extremely influenced" in their decisionmaking by rates of alcohol and drug-use among school-age children, while 41 percent reported incidences of violence and crime in schools as a factor.

Chapter I

Purpose and Design of the Study

The enactment of the Goals 2000: Educate America Act and the 1994 reauthorization of the Elementary and Secondary Education Act brought important changes in the federal role in elementary and secondary education. Categorical programs were redesigned to provide more flexible support for educational improvement in a framework of challenging state standards, assessments aligned with those standards, and capacity building through sustained professional development in core academic subjects. Goals 2000 has supported state and local activities in developing aligned standards, assessments, curricula, teacher preparation, and professional development.

The Study of Education Resources and Federal Funding (SERFF) examines the allocation and use of funds provided to school districts and schools through Goals 2000 and five of the largest ESEA programs. In addition, the study explores similarities and differences between Title I of ESEA and state compensatory education programs. The six federal programs included in this study are the following:

- Title I, Part A: Helping Disadvantaged Children Meet High Standards, Grants to LEAs
- Title II: Eisenhower Professional Development Program, Elementary and Secondary Programs
- Title III, Section 3132: Technology Literacy Challenge Fund
- Title IV: Safe and Drug-Free Schools and Communities, State and Local Agency Programs
- Title VI: Innovative Education Program Strategies
- Goals 2000: Educate America Act, State and Local Systemic Improvement

The study examines the targeting of these program funds at the district and school levels and how targeting has changed since the 1994 reauthorization. The study examines the extent to which program funds are used in strategies for improving student achievement, including extended time, schoolwide reform and improvement, professional development, and technology, and examines how the use of resources varies across schools and districts. It also examines what kinds of expenditures, staff, and activities are typically associated with different strategies, and how resource allocation decisions are made. The study examines the

proportion of funds used for instruction, instructional support, administration, and other purposes, as well as the proportion of funds used at the district and school levels. Finally, the study examines the uses of federal funds for administrative purposes at the state and district levels, and describes the kind of support services provided with these funds.

This final report builds on a preliminary report published in June 1999.[1] It contains additional information on how funds from the six federal programs were spent at the state, district and school level, including the share of funds used for instruction, instructional support, and administration. For Title I, the report examines the share of funds used for teachers, aides, technology, and professional development in high- and low-poverty schools and in elementary vs. secondary schools. This final report also examines Title I comparability issues, including levels of staffing and total resources provided before and after Title I funds are added, as well as class sizes and pupil/teacher ratios. This report also estimates the financial contribution of Title I in comparison to state compensatory education programs, for the nation as a whole and within specific states.

Overview of the federal education programs included in this study

The six federal education programs included in this study were selected because they are among the largest federal programs supporting elementary and secondary education. These six programs were funded at a total of $8.97 billion in FY 1997. Title I, Part A is by far the largest of the six programs ($7.3 billion), followed by Goals 2000 ($476 million), Title IV ($425 million), Title VI ($310 million), Title II ($260 million), and the Technology Literacy Challenge Fund ($200 million).

This study focuses only on those parts of each program that primarily provide grants directly to LEAs. Thus, the study does not include certain components of Title II, Title IV, and Goals 2000:

- Title II. The study includes grants for elementary/secondary programs ($260 million in FY 1997) and does not include funds allocated to institutions of higher education working in partnership with school districts and schools ($50 million).

- Title IV. The study includes state and local agency programs ($425 million) and does not include funds administered by Governors' offices ($106 million), which are used primarily to serve children and youth not normally served by school districts and populations that need special services (such as runaway or homeless children, dropouts, teen parents, and youth in detention facilities).

[1] Jay G. Chambers, Joanne Lieberman, Tom Parrish, Daniel Kaleba, James Van Campen, and Stephanie Stullich (1999). *Study of Education Resources and Federal Funding: Preliminary Report*. U.S. Department of Education, Office of the Under Secretary, Planning and Evaluation Service.

- Goals 2000. The study includes Title III grants for state and local systemic improvement ($476 million) and does not include Title IV parental assistance grants ($15 million), which are primarily allocated to parental information and resource centers.

The six programs accounted for 41 percent of all federal revenues for 1997-98 and 2.7 percent of total revenues for elementary and secondary education from all sources (federal, state, and local revenues) (Exhibit I-1). The largest of the six programs, Title I, provided 2.2 percent of total elementary-secondary revenues. Overall, total federal revenues accounted for 6.6 percent of total revenues from all sources. Although federal programs provide a relatively small percentage of total funding for elementary-secondary education, they may play a larger role in supporting specific educational needs and strategies—an issue that will be explored in this report.

Exhibit I-1
Percentage of Federal and Total Elementary-Secondary Revenues Provided Through the Six Programs in This Study, 1997-98 [2]

	Funding ($ in millions)	Percent of Total Federal Revenues	Percent of Total Revenues
Title I, Part A — Grants to LEAs	$7,295	33.5%	2.2%
Title II — Elementary and Secondary Programs	$260	1.2%	0.1%
Title III — Technology Literacy Challenge Fund	$200	0.9%	0.1%
Title IV — State and Local Agency Programs	$425	1.9%	0.1%
Title VI — State and Local Programs	$310	1.4%	0.1%
Goals 2000 — State and Local Systemic Improvement	$476	2.2%	0.1%
Total of six programs	$8,966	41.1%	2.7%
Total federal revenues for elementary-secondary education	**$21,807**	**100%**	**6.6%**
Total revenues for elementary-secondary education (all sources)	**$328,407**		**100%**

Exhibit reads: **Title I, Part A Grants to LEAs amounted to 33.5 percent of federal revenues for elementary and secondary education and 2.2 percent of total elementary-secondary revenues from all sources.**

Source: U.S. Department of Education

[2] Funding for individual federal programs is based on FY 1997 appropriations, which were primarily intended for use in the 1997-98 school year. Total elementary-secondary revenues for 1997-98 from federal sources and all sources were estimated based on 1995-96 revenues of $19,104,019 and $287,702,844 (respectively) reported in NCES (1999), *Digest of Education Statistics: 1998*, Table 157, and inflated by the 14.1 percent projected increase in current expenditures from 1995-96 to 1997-98 reported in NCES (1998), *Projections of Education Statistics to 2008*, Table 34.

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Other major federal programs that are not covered in this study include the school lunch and breakfast programs administered by the U.S. Department of Agriculture (27 percent of federal revenues) and special education programs authorized under the Individuals with Disabilities Education Act (19 percent).

Of the six federal programs in this study, four provide funding to a large majority of school districts through formula grants, while two provide competitive grants to a smaller number of districts. All 14,000 school districts are eligible to receive funds from Title II, Title IV, and Title VI, and Title I funds go to 12,900 districts (92 percent of the districts). In contrast, Goals 2000 provided competitive grants to 6,700 districts (47 percent) and Title III grants supported technology programs in 2,600 districts (18 percent).

The following paragraphs provide brief descriptions of the purposes of each of the six programs.

Title I, Helping Disadvantaged Children Meet High Standards

The largest program funded under the ESEA, Title I (Part A) provides well over $7 billion in aid to school systems across the country to improve education for children at risk of school failure who live in low-income communities. Its funding reaches more than 11 million children annually. Three-fourths of the funds are allocated to individual public schools, which may use their Title I funds either for additional services and resources for "Title I students" who have been identified as most at risk of school failure (targeted assistance programs), or, if the school's poverty rate is 50 percent or higher, for schoolwide programs that use Title I funds to improve the quality of educational programs and services throughout the school.

Title II, the Dwight D. Eisenhower Professional Development Program

Title II provides funding for professional development of teachers and other staff, with a primary focus on improving teachers' skills for teaching mathematics and science. The 1994 reauthorization also provided school districts with new flexibility to use some TitleII funds for professional development in other core academic subjects. The program is intended to support sustained and intensive, high-quality professional development that is aligned with state content and performance standards.

Title III, Technology Literacy Challenge Funds

This program supports a comprehensive system for elementary and secondary schools to acquire and use technology and technology-enhanced curricula, instruction, and administrative support resources and services to improve the delivery of educational

services. It is dedicated to using advanced technology to help all students develop problem-solving skills and achieve high academic standards, as well as achieve technological proficiency.

Title IV, Safe and Drug-Free Schools and Communities

Reauthorization expanded the purpose of this program, adding violence prevention to the goal of limiting drug use. The program's goals and authorized activities center on meeting the national education goal of safe and drug-free schools, and on creating and maintaining safe, disciplined, and drug-free environments for learning.

Title VI, Innovative Education Program Strategies

Title VI provides support for state and local educational improvement activities. These include standards-based reform, statewide and local capacity building, and academic improvement.

Goals 2000, Educate America Act

This program provides support to states, local communities and schools to help design and implement the school improvements most needed locally. It creates a partnership between the federal government and states and communities working to improve their schools. States are asked to (1) set challenging academic standards; (2) develop their own comprehensive education reforms; and (3) do this with broad-based grassroots parental involvement. In return, the federal government provides funds and flexibility.

Research questions

The Study of Education Resources and Federal Funding examines questions about how funds from six federal programs are used to support improved student learning. Broadly, the research questions for this study can be divided into three lines of inquiry: where do the federal dollars go, what does the money buy, and how do districts and schools decide how to allocate these resources?

Three lines of inquiry guide the study. Broadly, the study examines where these federal funds go, what the money buys, and the direct benefits to students and teachers. The study also shows how federal funds are combined with funds from state and local sources to meet the needs of students. Descriptions of the three primary research questions follow:

Where does the money go?

The principle goal of Title I is to improve the education of children living in low-income communities by providing supplemental funding to the schools and districts serving these children. Most of the other programs under study also have allocation formulas linked in some way to concentrations of poverty. The reauthorization of ESEA in 1994 intended to increase the proportion of funds received by high-poverty schools and districts. Has this happened? How have changes in the Title I formula affected the targeting of funds across these six federal programs? Do high-poverty districts and schools receive a larger share? Have average allocations per child and per poor child changed since reauthorization in high- versus low-poverty schools?

What does the money buy?

How are federal education funds used to support improved student learning, and to what extent are funds used for strategies highlighted in the reauthorized Elementary and Secondary Education Act, (e.g., professional development, extended time, parent involvement, coordinated services, Title I schoolwide programs, drug prevention programs)? For each of these strategies and for each federal program overall, how do districts and schools use the funds? What percentage of program funds is spent on salaries and benefits for teachers, aides, administrators, counselors and other certified staff, and clerical staff; instructional materials; technology; assessment; and across other areas and activities?

How are resource-allocation decisions made?

Who controls decisions (i.e., school district vs. school, federal program coordinator alone vs. together with principal/teacher)? What factors are considered in decisionmaking? What are the differences and similarities between Title I and state compensatory education programs regarding flexibility in the use of funds? Do schools perceive greater flexibility over resource allocation decisions since reauthorization? What is the impact of increases or decreases in federal program funds in the decisionmaking process?

Design of the study

Sample design

Data were collected from a nationally representative sample of states, districts, and schools. The study used a stratified random sample of 720 schools in 180 districts.

State sample

The state-level data collection included all 50 states and the District of Columbia. The sample of 180 school districts are located in 41 of the states.

School district sample

The sample of 180 school districts was selected randomly, with a school district's probability of selection proportional to the number of students enrolled in the district. This sample was selected from a sampling frame of more than 3,000 school districts that served at least 300 students in 1993-94 and were included in the 1997 Urban Institute study of standards-based reform. The Urban Institute study was conducted as part of the National Assessment of Title I. In general, the district and pupil weights used to develop the estimates for this study generalize to the population of districts that exceed 300 students.[3]

The district sample is nationally representative and thus is also representative for programs that provide funds to all or most school districts (Titles I, II, IV, and VI). However, two of the programs in this study provide discretionary grants to a somewhat smaller number of districts; in FY 1997, 6,700 districts received Goals 2000 funds and about 2,600 districts received Title III technology grants. Because only 35 of the responding districts received Title III grants (and only 12 of these provided information on program expenditures), the report does not present data for Title III districts but focuses more broadly on the uses of federal and other resources for technology across all districts. In the case of Goals 2000, there were 99 responding districts that received Goals 2000 funds (compared with, for example, 144 responding districts that received Title I funds), and 53 of these districts provided information on program expenditures; we concluded that these numbers are sufficient to warrant reporting study results for Goals 2000 districts.

School sample

Within the sample of 180 districts, 720 sample schools were selected to permit comparisons between schools with different poverty levels, grade levels (elementary and secondary), and Title I programs (Title I schoolwide, Title I targeted assistance, and non-Title I schools). To reflect the nationwide ratio of elementary to secondary schools, the sample included 540 elementary and 180 secondary schools.

[3] The sampling frame was stratified by district size (measured by enrollment) and student poverty (measured by the number of students eligible for free or reduced-price lunches). This sampling frame was strongly urged by the Independent Review Panel established under ESEA Section 14701(d) (2) to provide guidance for this and other studies of federal education programs. Use of the Urban Institute sample as a sampling frame for this study was intended to permit the results of the various data collection efforts to be linked in order to provide a richer database for evaluating the implementation of these ESEA programs and Goals 2000.

Data collection instruments and procedures

Data collection was conducted between March and September 1998. All data are for the 1997-98 school year (FY 1997 appropriations) unless otherwise indicated. Study team members first sought state assistance in notifying the sample districts and securing their participation in the study. We also asked districts to help in distributing the school-level data collection instruments and obtaining the completed survey forms.

Data collection instruments included survey questionnaires as well as requests for existing documents and materials showing the allocation and uses of federal program funds. These documents and materials could include budgets, plans, and personnel and payroll records. To ease respondent burden, data were accepted in whatever format was easiest for the respondent to provide, including electronic files, pre-existing printouts or reports, and/or completion of tables included in the request for documents and materials.

State-level data collection

All of the states were asked to submit information showing their suballocations or grants made to school districts and other agencies from each of the six federal programs in the study. States were also asked to provide information on state-level uses of funds from these programs, including budgets, plans, and/or personnel information. States were also specifically asked to provide the number of full-time equivalent (FTE) state-level employees funded through each federal program.

District-level data collection

The district questionnaire asked about strategies and activities supported by funds for professional development and technology generally as well as for individual programs covered in this study. The study also asked about the decision-making processes that districts used to decide how to use these resources. The questionnaire did not ask specifically about the uses of funds from the Technology Literacy Challenge Fund because there was more interest in learning about how districts used technology funds generally.

Districts were also sent two requests for documents and materials. The first, sent to the district director of federal programs, asked for budgets (by object and function) and/or plans for each federal program, overall budgets for professional development and technology, allocations to individual schools from Title I and (if applicable) state compensatory education, school enrollment and low-income counts, and school-level budgets for Title I and (if available) other federal programs in the study. The second request, sent to the district director of fiscal services, asked for the district's published budget for the 1997-98 school year, personnel and payroll reports for selected schools, and employee benefits information.

School-level data collection

The school questionnaire covered programs and resources available in the school, with a focus on professional development, technology, and Title I. Surveys of classroom teachers, Title I teachers, special education teachers, and Title I aides were also conducted. Information on the uses of Title I funds at the school level was collected if available.

Schools were also sent a request for documents and materials including a general staff roster, a roster of teachers by classroom, a master class schedule (primarily for secondary schools), and a schedule of aide time. This request combined with information obtained through phone conversations with principals and other school staff were used to determine personnel job titles and assignments. Data on all school personnel were requested in order to obtain a comprehensive picture of total spending on all instructional, support, and administrative personnel including certified and non-certified staff.

These school level data on personnel are combined with the personnel and payroll information obtained for these sample schools from the district office to determine how salaries and benefits were allocated among different school personnel by job title, job assignment, and educational program (e.g., general education, special education, and Title I). These data also permit estimation of the numbers of full-time-equivalent staff with various job titles and assignments at each school.

Analyses of school and teacher level data in this report often examine differences between high- and low-poverty schools, elementary and secondary schools, Title I and non-Title I schools, and Title I schoolwide and targeted assistance programs. School poverty levels are based on the percentage of students eligible for the free and reduced-price lunch program[4] (in contrast to district poverty levels, which are based on census poverty data). In elementary schools, the term "highest-poverty schools" is used to refer to schools where 75 percent or more of the students are eligible for free or reduced-price lunches, and "low-poverty schools" include all schools below 35 percent poverty. In secondary schools, "high-poverty schools" are those at or above the 50 percent poverty level, and "low-poverty schools" include all schools below the 50 percent poverty level.

[4] The school lunch program is administered by the U.S. Department of Agriculture.

Response rates

District response rates

Response rates varied for different components of the data collection and for different programs included in the data collection. For the survey questionnaire, the number of districts responding ranged from 121 districts for the Technology/Title III section of the questionnaire (a 67 percent response rate) to a high of 146 districts for the Title I section (an 81 percent response rate). The number of districts providing program budget or expenditure information was smaller, partly because some districts did not receive program funds (particularly for the two discretionary grant programs, Title III and Goals 2000) and partly because many districts found this information more difficult to provide. The number of districts providing program budgets ranged from 12 districts for Title III to 117 districts for Title I. Due to the small number of respondents providing Title III budget information, these data are not presented in this report. Finally, 138 districts provided information on their Title I allocations to schools.

Exhibit I-2
Number of Districts Responding, by Data Collection Component
(Sample Size = 180 Districts)

Questionnaire Program Component	Number of Districts Responding	Response Rate	Number Responding Receiving Program Funds	Number Receiving Funds and Providing Program Budget Information
Title I	146	81%	144	117
Professional Development and Title II	141	78%	139	101
Technology and Title III	121	67%	35	12
Title IV	139	77%	136	93
Title VI	141	78%	140	110
Standards-Based Reform and Goals 2000	141	78%	99	53
State Compensatory Education	124	69%	53	21

Exhibit reads: **Out of 180 school districts in the sample, 81 percent (146) responded to the Title I component of the district questionnaire for this study. Of this sample, 144 districts received Title I funds and 117 provided program budget information.**

School response rates

Of the 711 sample schools selected for this study, 510 responded to the survey questionnaire, for an overall school response rate of 72 percent (Exhibit I-3).[5] Personnel and payroll data were obtained for a slightly smaller number (495) of the sample schools, for a response rate of 70 percent for this portion of the data collection.

Slightly over half (56 percent) of the schools responding to the survey questionnaire were Title I schools, and these schools were asked to also provide data on their Title I budgets or expenditures if available; 178 of the 288 Title I schools (62 percent) provided this information.

Exhibit I-3
Response Rates for Schools

Data Provided	Number of Responding Schools	Respondent Frame	Number of Potential Respondents	Response Rate
Questionnaire	510	All sample schools	711	72%
Personnel and Payroll Data for All School Personnel	495	All sample schools	711	70%
Title I Budget or Expenditure Data	178	Title I schools responding to questionnaire	288	62%

Exhibit reads: **Of the 711 schools selected for this study, 510 responded to the questionnaire, for a response rate of 72 percent.**

Elementary schools accounted for 79 percent of the schools responding to the survey questionnaire (401 schools), and secondary schools accounted for the remaining 21 percent (109 schools) (Exhibit I-4).[6] Secondary schools are defined as those not enrolling students in any of the grades six or below. Because the sample of secondary schools is relatively small, the analyses presented in this report are less reliable for secondary schools

[5] Of the initial sample of 720 schools, nine were dropped because they had been closed before data collection began.

[6] The relatively large number of elementary schools in the study sample largely reflects the fact that elementary schools account for 75 percent of schools nationally (see table 90 in the Digest of Education Statistics, 1998, National Center for Education Statistics, http://nces.ed.gov/pubs99/digest98).

than they are for elementary schools, particularly for analyses of subgroups such as the highest-poverty secondary schools (maximum of 17 sample schools) and Title I secondary schools (maximum of 39 sample schools).

Exhibit I-4
Number of Responding Schools

	Survey Questionnaire			Personnel & Payroll Data		
	All	Elementary	Secondary	All	Elementary	Secondary
All Schools	510	401	109	495	385	110
School Poverty Level						
Highest Poverty (≥75%)	108	92	16	111	94	17
Moderately High Poverty (50-74%)	111	93	18	107	86	21
Moderate Poverty (35-49%)	71	53	18	65	47	18
Low Poverty (<35%)	220	163	57	212	158	54
Title I Status						
Non-Title I School	223	153	70	226	152	74
Title I School	287	248	39	269	233	36
Schoolwide Program	152	133	19	136	121	15
Targeted Assistance Program	125	109	16	120	105	15
Did Not Specify Program Type	10	6	4	13	7	6

Exhibit reads: **The sample of 510 schools responding to the survey questionnaire included 401 elementary schools and 109 secondary schools.**

Looking at the poverty levels of schools responding to the survey questionnaire, the highest-poverty schools accounted for 108 of the schools (21 percent), and low-poverty schools accounted for 220 schools (43 percent). The highest-poverty schools were more strongly represented at the elementary level (92 schools) and were few in number at the secondary level (16 schools). Due to the small number of secondary schools in the highest-poverty category, comparisons of high- and low-poverty secondary schools combine the highest and lowest two poverty groups.

Title I schools accounted for more than half of the responding schools (287 schools), and schoolwide programs (152) outnumbered targeted assistance programs (125) in the sample of respondents. About 3 percent of the Title I schools did not specify whether they had a schoolwide or targeted assistance program.

Teacher and aide questionnaires

Of the classroom and special education teachers initially specified for this study, completed surveys were received from 65 percent and 62 percent, respectively (Exhibit I-5). These teacher response rates, however, include districts refusing to disseminate surveys to their teachers. (Due to the timing specified for this study, these requests arrived very late in the school year. Therefore, some districts agreed to submit centralized data for inclusion in the study, but refused to send surveys to their teachers.) Of the surveys eventually reaching teachers, the response rates were quite good, ranging from 89 percent to 94 percent for various types of teachers. For the Title I teacher and aide samples, only this latter percentage (i.e. the response rate for those receiving questionnaires) is shown in Exhibit I-5, because the potential number of respondents in schools refusing to participate in this part of the study is unknown.

Exhibit I-5
Response Rates for Teacher and Aide Questionnaires

	Number of Responding Teachers	Number Selected in All Sample Schools	Response Rate	Number of Questionnaires Sent to Participating Schools	Response Rate for Teachers Who Received Questionnaires
Classroom Teachers * Departmentalized * Non-departmentalized	1,015 319 677	1,620	65%	1,098	92%
Title I Teachers	337	**	**	378	89%
Special Education Teachers	552	886	62%	588	94%
Title I Teacher Aides	338	**	**	360	94%

** unknown because school Title I status was unknown before data collection

Exhibit reads: **Completed questionnaires were received for 1,015 of the 1,620 classroom teachers in the initial sample for this study (a 65 percent response rate). However, of this initial sample of classroom teachers, 522 did not actually receive questionnaires because their district or school decided not to participate in the study. Of the 1,098 classroom teachers who were sent questionnaires, 92 percent responded.**

Overview of the report

The report is organized into 11 chapters. This first chapter has provided an overview of the research study, including a discussion of the research questions. The second chapter, *The Targeting of Federal Education Program Funds*, addresses the research question, "Where does the money go?" It examines the broad targeting goals of the six programs, and how well these programs are targeted to low-income districts and students. Chapter III, *Use of Federal Funds for Instruction, Instructional Support, and Program Administration* discusses the allocation of federal funds to individual schools, for districtwide programs and services related to instruction and instructional support, and for program administration.

Chapter IV, Comparability of State and Local Resources in Title I and Non-Title I Schools, examines the extent to which schools have comparable levels of staffing resources before Title I funds are added.

Chapters V through XI address the research question, "What does the money buy?" Chapter V, *Use of Title I Resources to Improve Educational Opportunities for At-Risk Students*, examines the resources provided through Title I, including the amount of resources that Title I adds in high- and low-poverty schools, the amount of Title I funds used for instruction and instructional support, and the use of Title I funds for teachers and aides. Chapter VI, *Preschool and Extended-Time Programs*, analyzes the extent to which schools use preschool and extended time programs, as well as the number of students served and duration of these programs. Chapter VII, *Improving the Skills and Knowledge of Teachers*, addresses the support provided through federal programs for professional development and teachers' overall participation in various types of professional development. Chapter VIII, *Increasing Access to Technology*, analyzes the support provided through federal programs for technology and the overall availability and use of technology in schools. Chapter IX, *Standards-Based Reform and the Goals 2000 Program*, examines how districts use resources provided through the Goals 2000 program for implementation of standards and assessments. Chapter X, *Title VI Innovative Education Program Strategies*, examines how districts use resources provided through the Title VI program. Chapter XI, *Safe and Drug-Free Schools and Communities*, describes the services and resources provided through Title IV funds to reduce or prevent school violence and student use of drugs, alcohol, and tobacco.

Chapter II

Targeting of Federal Education Funds

Each of the six federal education programs in this study has different priorities and provisions governing the allocation of funds among states, school districts, and other agencies. For all six programs, the Department of Education allocates funds to states in accordance with statutory formulas, and the states then suballocate the funds to school districts and other agencies eligible to receive the funds, either through formula (Titles I, II, IV, and VI) or through competitive grants (Title III and Goals 2000).

The number of poor school-age children is a factor in allocations for five of the six programs. Title I Part A allocations are based primarily on Census Bureau estimates of the number of poor school-age children in each county and school district. Four of the other programs (Titles II, III, IV, and Goals 2000) allocate funds to states based partly on state shares of Title I Part A funds, and thus are indirectly influenced by poverty data (in the case of Title III, state allocations are based solely on Title I Part A allocations).

The number of all school-age children is used in making state allocations for four of the programs. Title VI allocations are based solely on state shares of total school-age children, and half of the funds for Title II, Title IV, and Goals 2000 are allocated on this basis.

Exhibit II-1 summarizes, for each of the six programs, the basic provisions of the formulas that determine state allocations and the processes by which states then suballocate these funds.

Exhibit II-1
Statutory Provisions Governing the Allocation of Funds to States and Within States in FY 1997

	Formulas for Determining State Allocations	Within-State Allocations
Title I, Part A	Basic Grants (86 percent of Title I Part A funds in FY 1997) are allocated based on the number of formula-eligible children in each county (primarily Census estimates of the number of children aged 5-17 living in poverty), multiplied by 40 percent of the state's per-pupil expenditures (SPPE). Concentration Grants (14 percent) are allocated to eligible counties (those with more than 15 percent or 6,500 formula children) in the same manner as Basic Grants.	SEAs suballocate the funds to school districts based on the number of poor children in each district using the state's choice of poverty measure (most commonly, census or free and reduced-price lunch data). SEAs may retain no more than 1.5 percent for state administration and school improvement activities. Note: Beginning in FY 1999, the federal government will make allocations to the district level rather than based on county-level data. States may reallocate these funds among school districts to take into account boundary changes, charter schools, and, for small districts, alternative poverty data.
Title II	Half of the funds are allocated based on state shares of total funds allocated under Title I, Part A, and half based on state shares of total school-age children (aged 5-17). Each state's funds are then divided between Elementary-Secondary Programs (84 percent) and Higher Education Programs (16 percent).	Elementary-Secondary Programs: Half of the funds are allocated based on school district shares of total funds allocated under Title I, Part A, and half based on district shares of total enrollment. Higher Education Programs: Competitive grants to institutions of higher education and nonprofit agencies working in conjunction with local school districts. States may retain no more than 5 percent for state administration, and an additional 5 percent for state-level activities.
Title III	Allocations are based on state shares of total funds allocated under Title I, Part A.	Competitive grants to school districts.

Exhibit II-1 (continued)	Formulas for Determining State Allocations	Within-State Allocations
Title IV	Half of the funds are allocated based on state shares of total funds allocated under Title I, Part A, and half based on state shares of total school-age children (aged 5-17). Each state's funds are then divided between the State Education Agency (80 percent) and the Governor's Office (20 percent).	State and Local Agency Programs: SEAs suballocate their funds on the basis of formulas that include public and private school enrollments (70 percent) and identified need (30 percent). SEAs may retain no more than 9 percent for state administration and state-level activities. Governors' Programs: Competitive grants, with priority to programs and activities for children and youth not normally served by school districts and populations that need special services or additional resources (such as preschoolers, runaway or homeless children, teen parents, and youth in detention facilities). Governors' Offices may retain no more than 5 percent for state administration.
Title VI	Allocations are based on state shares of total school-age children (aged 5-17).	Formula grants based on school district shares of total enrollment. SEAs may weight district enrollments in order to provide higher per-pupil allocations to districts with high concentrations of poor children or children living in sparsely populated areas. SEAs may retain no more than 15 percent for state administration and state-level activities.
Goals 2000	Half of the funds are allocated based on state shares of total funds allocated under Title I, Part A, and half based on state shares of total funds allocated under Title VI.	Competitive grants to school districts.

District-level targeting

Distribution of federal, state, and local revenues among high- and low-poverty districts

Federal education funds are much more targeted to high-poverty districts than are state and local funds. In the 1994-95 school year, the districts in the highest-poverty quartile, which had 25 percent of the nation's school-age children and 49 percent of the nation's poor children, received 43 percent of federal funds, compared with only 23 percent of state and local funds. In contrast, districts in the lowest-poverty quartile, which had 25 percent of all children and 7 percent of the poor children, received 11 percent of federal funds but 30 percent of state and local funds (Exhibit II-2).

Exhibit II-2
Distribution of Federal, State, and Local Revenues by District Poverty Quartile, 1994-95

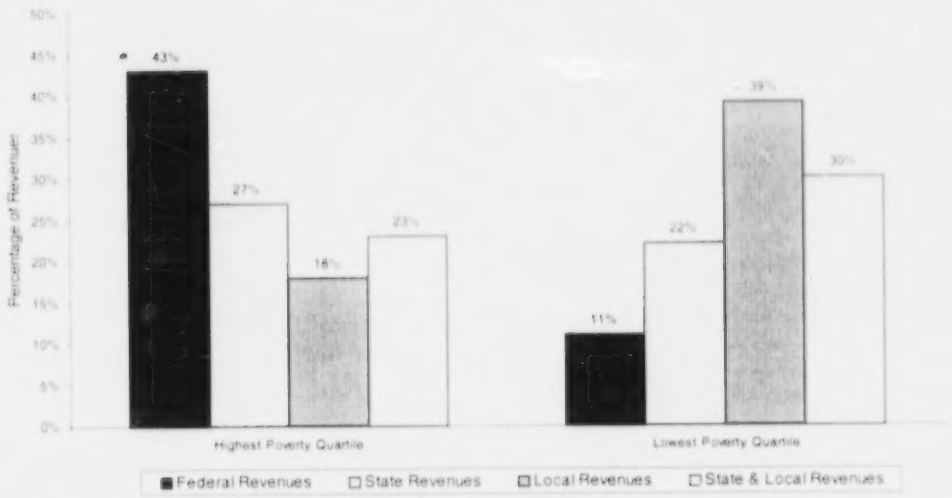

Exhibit reads: **The poorest school districts received 43 percent of all federal revenues, but only 23 percent of state and local revenues.**

Source: U.S. Department of Commerce, Bureau of the Census, Survey of Local Government Finances, School Systems (F-33), 1994-95.

Note: District poverty quartiles are based on Census Bureau estimates of the number of school-age children and poor children living in each district in 1990. The poverty quartiles were established by ranking all districts by the percentage of poor school-age children and then dividing these districts into quartiles such that each contained 25 percent of the school-age children. In districts in the highest-poverty quartile, 24.7 percent or more of the school-age children were living in poverty in 1990. In the lowest-poverty quartile, fewer than 7.7 percent of the school-age children were poor.

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State funds, on average, compensated partially but not fully for funding disparities related to local property tax bases. Districts in the highest-poverty quartile received 18 percent of local education revenues and 27 percent of state education revenues, but their share of state and local funds combined (23 percent) was still less than their share of school-age children (25 percent).

Total revenues per student in the highest-poverty districts were about 10 percent less than in the lowest-poverty districts in 1994-95. This occurs despite the fact that state and federal revenues are considerably higher in the highest-poverty districts, and is due to local revenues per student in the lowest-poverty districts being nearly twice that of the highest-poverty districts. Across all four poverty groups, while federal and state revenues consistently rise with poverty, local revenues consistently fall. Overall, this creates a u-shaped pattern with the second-lowest-poverty districts receiving the least total funding per student (Exhibit II-3).

Exhibit II-3
Federal, State, and Local Revenues Per Student
by District Poverty Quartile, 1994-1995

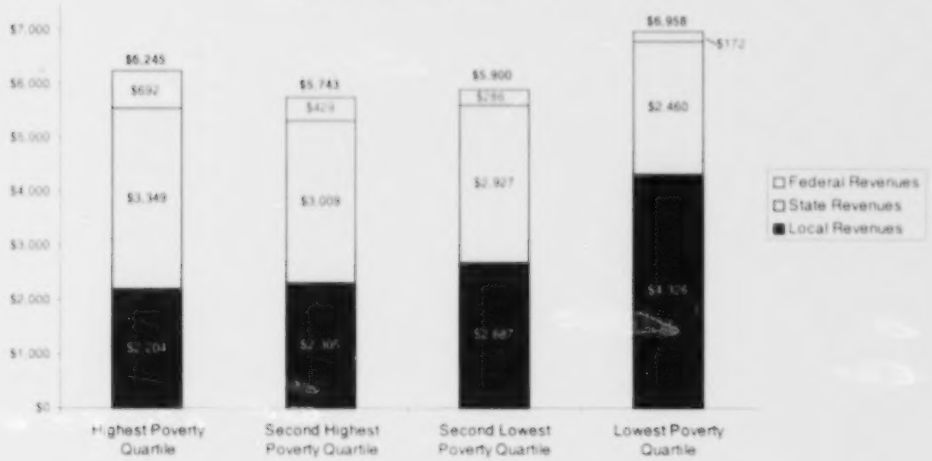

Exhibit reads: **Although federal revenues provided an additional $692 per student in the highest-poverty districts, compared with $172 per student in the lowest-poverty districts, the highest-poverty districts still received 10 percent less in total revenues per student ($6,245) compared with the lowest-poverty districts ($6,958).**

Source: U.S. Department of Commerce, Survey of Local Government Finances, School Systems (F-33), 1994-1995.

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Across all districts, federal funds comprise 6.3 percent and Title I comprises 2.4 percent of total revenues. The share of revenues provided through federal funds is considerably higher in the highest-poverty districts, who receive 11.1 percent of their revenues from federal programs and 4.5 percent from Title I. These percentages fall considerably from the highest- to the lowest-poverty quartiles of districts, with the percentage shares being over four times greater in the highest-poverty as compared to the lowest-poverty quartiles (Exhibit II-4).

Exhibit II-4
Share of District Revenues Provided Through Title I and All Federal Funds, by District Poverty Quartile, 1994-95

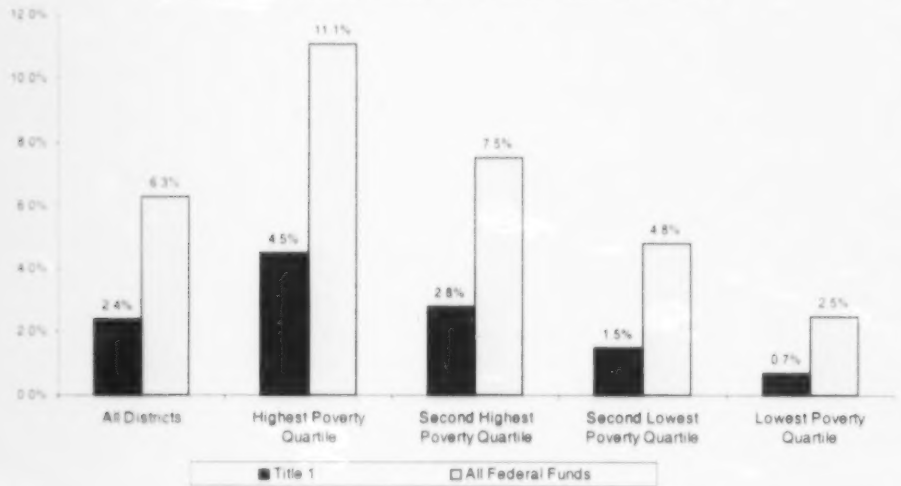

Exhibit reads: **In the highest-poverty districts, Title I provided 4.5 percent of district revenues and federal funds overall provided 11.1 percent—about twice as high as the national average for all districts (2.4 percent and 6.3 percent, respectively).**

Source: U.S. Department of Commerce, Survey of Local Government Finances, School Systems (F-33), 1994-95.

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Of the six federal programs included in this study, Title I was the most strongly targeted to the poorest districts. In FY 1997, districts in the highest-poverty quartile received 50 percent of all Title I funds—about the same as these districts' share of the nation's poor school-age children. Similarly, the share of Title I funds allocated to districts in the lowest-poverty quartile (8 percent) was also about the same as the proportion of poor children in these districts (Exhibit II-5).

Exhibit II-5
Share of Funds from Six Federal Education Programs Allocated to Highest and Lowest Poverty Districts, FY 1997

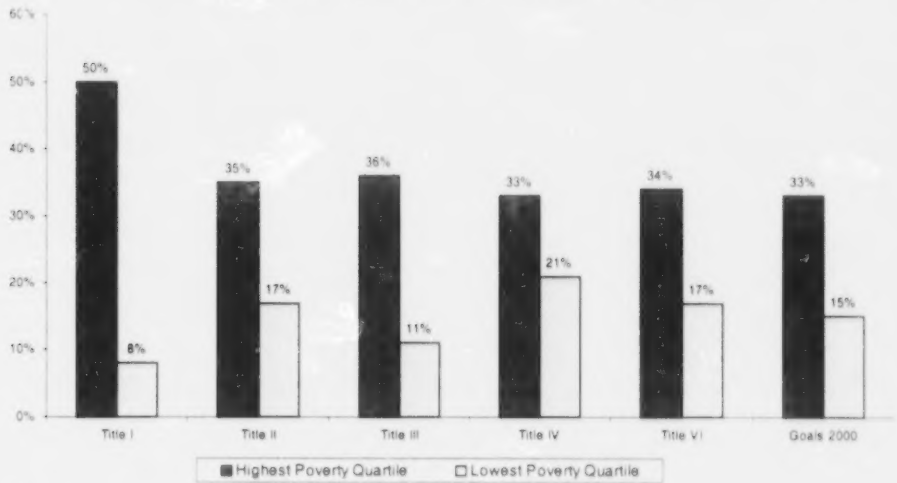

Exhibit reads: **Districts in the highest-poverty quartile received 50 percent of all Title I funds, while districts in the lowest-poverty quartile received 8 percent of the funds.**

Source: Suballocation data from all states

Note: Allocations to consortia of school districts are not broken down into constituent allocations for each district in the consortia; however, these consortia may account for a small proportion of total funds.

For the other five federal programs included in this study, the share allocated to high-poverty districts was less than for Title I, but higher than for state and local funds. The share of funds allocated to the poorest quartile of districts was fairly similar across these five programs, ranging from 33 percent for Title IV to 36 percent for Title III. The highest-poverty districts' share of funds from these five programs was larger than their share of all school-age children (25 percent) but less than their share of poor children. The share of funds allocated to the lowest-poverty quartile of districts varied more widely across

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programs, ranging from 11 percent (Title III) to 21 percent (Title IV) of these funds. These districts enrolled 7 percent of the nation's poor children.

The distribution of funds by poverty quartile did not appear to vary substantially between formula grants (Titles II, IV, and VI) and discretionary grants (Title III and Goals 2000).

Taking a closer look at Title I targeting, the highest-poverty districts received the most funding per student, but they received the least in Title I funds per poor student. The highest-poverty districts received six times more Title I funding per student than did the lowest-poverty districts. However, the lowest-poverty districts received nearly 14 percent more Title I funds per poor student than did the highest-poverty districts (Exhibit II-6).

Exhibit II-6
Title I Funding per Student and per Poor Student by District Poverty Quartile, FY 1997

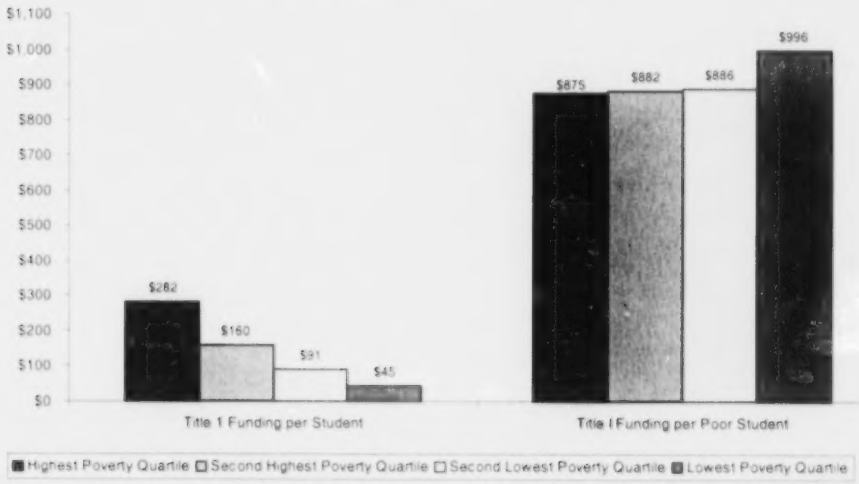

Exhibit reads: **Districts in the highest-poverty quartile received the most Title I funding per student, at $282. They received the least Title I funding per poor student, at $875.**

Source: Suballocation data from all states for FY 1997.

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Effects of the 1994 reauthorization on district-level targeting

The formula changes enacted in the 1994 reauthorization have had little effect on the targeting of federal funds at the school district level. For all five programs in this study that existed in the FY 1994, the distribution of funds among district poverty quartiles was virtually the same in FY 1997 as in FY 1994. For example, the share going to the poorest quartile of districts was the same in both years for Title I (49 percent), Title II (35 percent), and Title VI (34 percent), and slightly higher in FY 1997 for Title IV and Goals (for both programs, 31 percent in the FY 1994 and 33 percent in FY 1997).

Taking a closer look at the impact of reauthorization on Title I targeting, we see that the lowest-poverty districts continue to receive more Title I funds per poor student in FY 1997 ($996) compared with the highest-poverty districts ($875). This is very similar to the pattern in FY 1994, when the lowest-poverty districts received $968 per poor student and the highest-poverty districts received $842 per poor student. In FY 1997, the lowest-poverty districts received 14 percent more funding per poor student than did the highest-poverty districts, while in FY 1994 the lowest-poverty districts received 15 percent more funding per poor student (Exhibit II-7). Title I funds continued to go to 93 percent of all school districts, the same percentage as in 1987-88.

Exhibit II-7
Change in Title I Allocations per Poor Student by District Poverty Quartile, FY 1994 and FY 1997

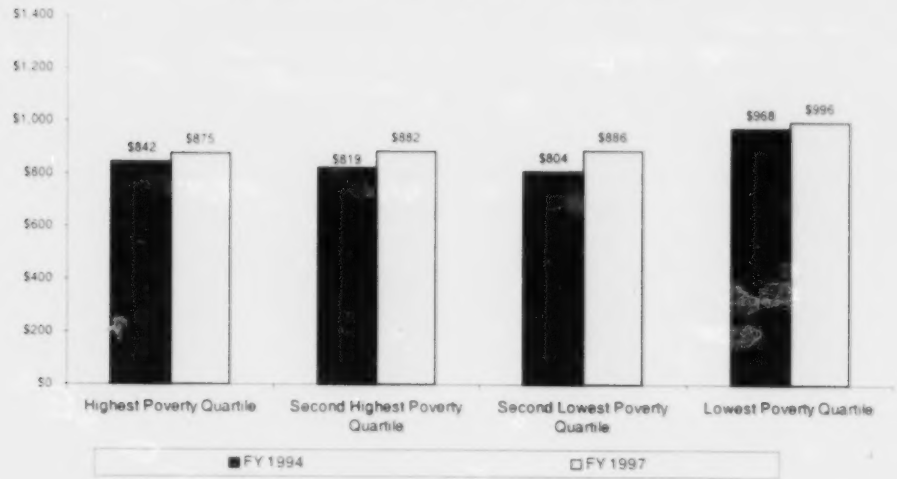

Exhibit reads: **In the highest-poverty quartile of districts, Title I funding rose from $842 per poor student in 1994-95 to $875 per poor student in FY 1997.**

Sources: U.S. Department of Education, GEPA 424 Biennial Data Collection on the Distribution of Federal Education Funds (FY 1994), and suballocation data from all states for FY 1997.

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Title I targeting might have been expected to increase after the 1994 reauthorization due to the enactment of a new Targeted Grants formula, but this formula has not been funded. In addition, Congress has substantially increased funding for Concentration Grants since 1994 (including a 49 percent increase for Concentration Grants in FY 1997), but this formula still allocates only 14 percent of total funding. Thus, the overall distribution of funds closely resembles the distribution of Basic Grants, which allocates 86 percent of total Title I funds (Exhibit II-8).

Exhibit II-8
Share of Title I Funds Allocated to Highest and Lowest-Poverty Districts Under Various Statutory Formulas (Simulations Based on FY 1999 Appropriations)

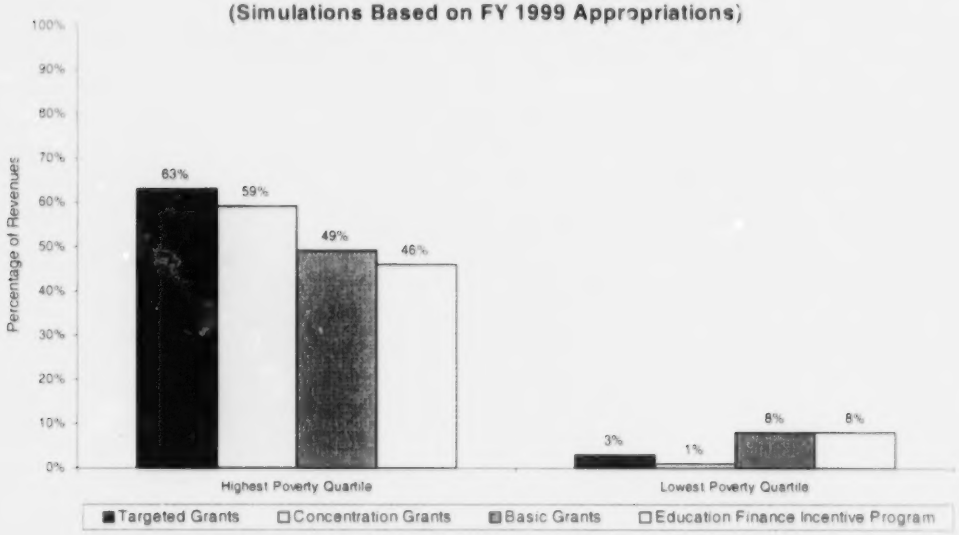

Exhibit reads: **Districts in the highest-poverty quartile would receive 63 percent of the funds under the Targeted Grants formula, compared to 59 percent under Concentration Grants, 49 percent under the Basic Grants, and 46 percent under the Incentive Grants.**

Source: U.S. Department of Education, simulated allocations based on FY 1999 appropriations levels without the application of the hold-harmless provision. Targeted and Incentive Grants were simulated using the FY 1999 appropriations amount for Concentration Grants.

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The Title I statute currently authorizes four different formulas for allocating Title I funds—Basic, Concentration, Targeted, and Incentive Grants—but to date funds have only been appropriated for Basic and Concentration Grants. Exhibit II-8 shows the percentage of funds under each of these formulas that would be received by the highest- and lowest-poverty districts. For the purpose of this analysis, allocations under the Basic and Concentration formulas were simulated without hold-harmless provisions, and allocations under the Targeted and Incentive formulas were simulated using the FY 1999 appropriations amount for Concentration Grants.

The Targeted Grants formula would direct the most funds to the poorest quartile of districts (63 percent), followed by the Concentration (59 percent) and Basic (49 percent) formulas. The Education Finance Incentive Program is the least targeted of the four allocation formulas, providing only 46 percent to the highest-poverty districts.

Distribution of federal program funds by urbanicity

This analysis focuses on comparing large central city districts and rural districts. These data were developed using the National Center for Education Statistics' seven urbanicity categories, and more detailed data on all seven groups of districts are presented in the technical appendix to this report. Funding patterns for these two groups of districts differ markedly depending on whether funds are allocated by formula or through a discretionary, competitive grants process, and so this is also a particular focus of this section.

Large central city districts received a larger share of total FY 1997 funds under Title I than under the other three formula grant programs, and much smaller share of funds under the two competitive grant programs. Large central city districts received 31 percent of all Title I funds, between 23 and 25 percent of funds under the other three formula grant programs, and between 15 and 16 percent of funds under the two competitive grant programs (Exhibit II-9). Their share of all Title I funds was greater than their share of poor school-age children (29 percent), while their share of the two competitive grants was less than their share of all school-age children (18 percent) and their share under the other three formula grants was between their share of all children and poor children.

Exhibit II-9
Share of Federal Education Program Funds
Allocated to Large Central City and Rural School Districts, FY 1997

	Large Central City	Rural
Share of Nation's School-Age Children (1990)		
All children	18%	13%
Poor children	29%	14%
Share of Formula Grants		
Title I	31%	13%
Title II	23%	14%
Title IV	25%	11%
Title VI	25%	13%
Share of Competitive Grants		
Title III	15%	26%
Goals 2000	16%	21%

In contrast, rural districts received a much larger share of funds under the two competitive grant programs than they did under the four formula grants. Rural districts received between 11 and 14 percent of total funds under the four formula grant programs—roughly comparable to their share of all children (13 percent) and poor children (14 percent)—but they received 21 percent of total funds under Goals 2000 and 26 percent of funds under the Title III Technology Literacy Challenge Fund.

Why did large central city districts receive a relatively small share of competitive grant funds and rural districts receive a relatively large share? Large central city districts were in fact somewhat more likely to receive one of these competitive grants, and rural districts were somewhat less likely to receive one: Goals 2000 grants were received by 63 percent of large central city districts and 29 percent of rural districts, while Title III grants were received by 24 percent of large central city districts and 14 percent of rural districts (Exhibit II-10). However, among those districts that did receive grants, the size of the grant per pupil was much larger in the rural districts. For Goals 2000, large central city districts received an average grant of $10 per pupil, compared with $57 per pupil in rural districts receiving Goals funds. For Title III, the difference was even greater: large central city districts received an average grant of $13 per pupil, about 10 percent of the average per-pupil grant of $133 in rural districts receiving Title III funds.

Exhibit II-10
Share of Federal Education Programs Funding for Competitive Grants in Large Central City and Rural Districts, FY 1997

	All Districts	Large Central City	Rural
Number of Districts			
Goals 2000	5,488	152	927
Title III	2,459	59	441
Percent of Districts Receiving Grants			
Goals 2000	39%	63%	29%
Title III	17%	24%	14%
Average Allocation Per Pupil			
Goals 2000	$19	$10	$57
Title III	$22	$13	$133

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Funding for state compensatory education programs

Many states have state-funded programs that, like Title I, target additional resources to help districts and schools meet the needs of disadvantaged students. Some of these state compensatory education programs allocate funds based on numbers of poor students, while others are based on numbers of low-achieving students or other indicators of special needs (e.g., students with limited English proficiency, single-parent families). The purpose of these programs is generally to provide supplemental educational services. However, some states specify no clear purpose, which may suggest that the "programs" are more generally intended to provide supplemental resources to high-need districts and schools. In some states, "compensatory education funds" are embedded in the state school finance formula, and the distribution and uses of the funds are not tracked separately from general state aid to schools.

There is considerable ambiguity over which states have programs that can be categorized as state compensatory education, and different sources provide different lists of states that have such programs. Perhaps the most comprehensive delineation of state compensatory education programs was published by the American Education Finance Association (AEFA) in 1995. This report lists 24 states that had state compensatory education programs in 1993-94.[1] For the NCES Survey of Local Government Finances for School Districts ("F-33 Survey"), 23 states reported district-level data on state compensatory education funds in 1994-95[2]—but only 12 of these states were the same as those listed in the AEFA report. The SERFF study asked all 50 states to provide district allocations made under state compensatory education programs for 1997-98. Although only eight states responded,[3] they include two of the nation's largest states (California and New York) which were not shown in the NCES F-33 database as having state compensatory education revenues (all eight states were included in the AEFA list). Only five states were shown to have state compensatory education programs in all three sources.

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[1] The AEFA report, Public School Finance Programs of the United States and Canada, 1993-94, Volumes One and Two, lists 24 states allocating separate funds for state compensatory education. These are Arkansas, California, Colorado, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, South Carolina, Texas, Virginia, Washington, Wisconsin, and Wyoming. In addition, the report lists three states where state compensatory education funds were embedded in the general formula (Delaware, Kansas, and Massachusetts), one state that provided compensatory funds to a single school district (Oregon), and one state that did not provide state funds but required local school boards to provide remediation programs (New Mexico). This report does not include district-level revenue or allocation data.

[2] The 23 states that reported state compensatory education revenues on the NCES F-33 survey are Arizona, Arkansas, Colorado, Connecticut, Florida, Illinois, Iowa, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, North Carolina, Ohio, Pennsylvania, South Carolina, Texas, Utah, Vermont, Virginia, Washington, and Wyoming.

[3] The eight states that reported state compensatory education allocations for the SERFF study were California, Maryland, Michigan, Missouri, New York, Texas, Washington, and Wyoming.

This report presents data on state compensatory education funding patterns based on the two data sources listed above that provide data on district-level allocations: the NCES F-33 data for 23 states in 1994-95, and the SERFF data for eight states in 1997-98. The following section compares state compensatory education funding patterns to Title I in terms of the total level of funding provided and the extent to which those funds are targeted to high-poverty districts. Interestingly, despite the differences between these two data sources in the total number of states, the specific states included, and the year, the revenue trends observed are fairly consistent.

Title I revenues per poor student exceeded state compensatory education funds by more than one-third for these two years. Across the 8 states reporting state compensatory education revenues for the 1997-98 school year, compensatory funds averaged $704 per poor student, compared to $947 in Title I funding per poor student in those states. Across the 23 states reporting state compensatory education revenues for 1994-95, compensatory funds averaged $593 per poor student, compared to $833 for Title I funding (Exhibit II-11).

Exhibit II-11
Title I and State Compensatory Education Funding per Poor Student in States Reporting Compensatory Education Revenues 1994-95 and 1997-98

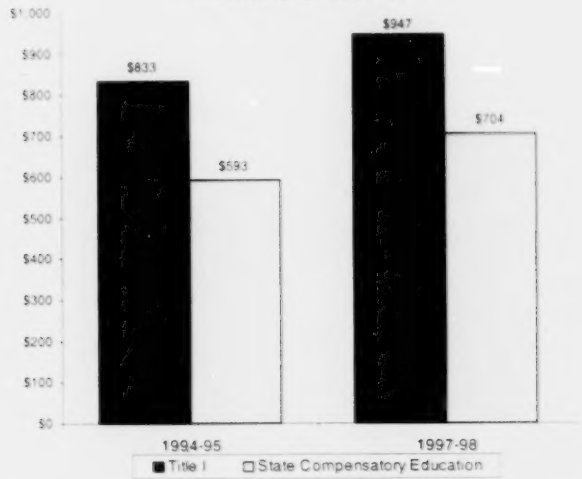

Exhibit reads: **In states reporting compensatory education revenues in 1997-98, the amount of Title I revenues per poor student ($947) was 35 percent greater than state compensatory revenues per poor student ($704).**

Sources: U.S. Department of Commerce, Survey of Local Government Finances, School Systems (F-33), 1994-95 (states reporting compensatory education revenues were AR, AZ, CO, CT, FL, IA, IL, MA, MD, MI, MN, MS, NC, NJ, OH, PA, SC, TX, UT, VA, VT, WA, and WY). SERFF data collection for 1997-98 (states reporting compensatory education revenues were CA, MD, MI, MO, NY, TX, WA, and WY).

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However, the amount of funds provided through state compensatory education programs varied considerably across states. In about half of the states, compensatory education funds comprised less than 2 percent of total state revenues and amounted to less than 20 percent of Title I funding per poor student. In these states, compensatory education funds often amounted to less than $100 per poor student. In a few states, compensatory funds were a much more significant source of funds and indeed, were greater than Title I funding in three states (Maryland, New Jersey, and Texas). In Texas, for example, compensatory funds accounted for 10 percent of total state revenues for education and amounted to $1,063 per poor student—46 percent more than the amount provided through Title I funds ($727).

On average, the degree of targeting to high-poverty districts was similar between state compensatory education programs and Title I, although targeting varied considerably across states. Districts that were in the highest quartile of poverty in their state received between 49 percent and 52 percent of state compensatory education funds, on average. Across the 8 states reporting state compensatory education revenues for 1997-98, the poorest districts received 52 percent of total compensatory funds, compared with a 55 percent share of Title I funds in those states. Across the 23 states reporting state compensatory education revenues for 1994-95, the poorest districts received 49 percent of total compensatory funds, compared with a 54 percent share of Title I funds. However, this pattern varied considerably across states, and the share received by the highest-poverty districts ranged from a high of 97 percent (in Minnesota) to a low of 21 percent (in Pennsylvania).

The Technical Appendix to this report contains more detailed information on funding for state compensatory education, including the overall level of funding in each state as well as the share of funds allocated to the poorest districts in each state.

Similar to Title I, low-poverty districts received more state compensatory education funds per poor student than do high-poverty districts. This pattern held true across both years examined (1994-95 and 1997-98), even though the states included in the analysis were quite different for each of these years. It should be noted that the district poverty quartiles for this analysis were uniquely set for each state. Across the 23 states providing these data for 1994-95, the lowest-poverty districts received 41 percent more in state compensatory education funds per poor student compared with the highest-poverty districts. Across the eight states providing these data for 1997-98, the lowest-poverty districts received 26 percent more per poor student than the highest-poverty districts (Exhibit II-12).

Exhibit II-12
State Compensatory Education Funding per Poor Student
by District Poverty Quartile
in States Reporting Compensatory Education Revenues
1994-95 and 1997-98

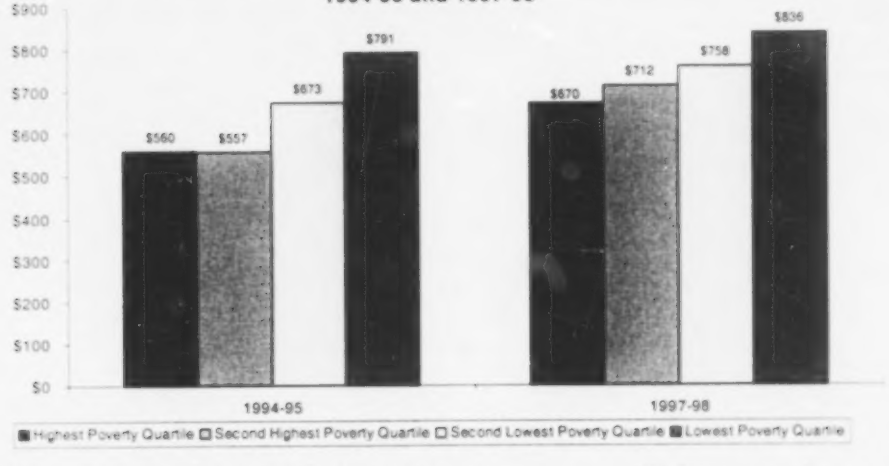

Exhibit reads: **In 1994-95, districts in the highest-poverty quartile from reporting states received on average $560 in state compensatory education revenues per poor student, while those in the lowest-poverty quartile districts received $791 in state compensatory education funding per poor student.**

Sources: U.S. Department of Commerce, Survey of Local Government Finances, School Systems (F-33), 1994-95 (states reporting compensatory education revenues were AR, AZ, CO, CT, FL, IA, IL, MA, MD, MI, MN, MS, NC, NJ, OH, PA, SC, TX, UT, VA, VT, WA, and WY). SERFF data collection for 1997-98 (states reporting compensatory education revenues were CA, MD, MI, MO, NY, TX, WA, and WY).

The higher amount of state compensatory education funds per poor student in the lowest-poverty quartile of districts is more pronounced than with Title I. In FY 1997, Title I allocations per poor student were 14 percent higher in the lowest-poverty districts than in the highest-poverty districts (see Exhibit II-6).

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School-level targeting

Title I

Although districts must allocate Title I funds to schools based on poverty, they have some discretion regarding which measure of poverty (or combinations of measures) to use. The vast majority of districts (90 percent) reported that they allocate Title I funds based on the number of children eligible for free and reduced-price lunch. The second most common measure was the number of children in families receiving assistance under the Temporary Assistance to Needy Families (TANF) program (29 percent). Some districts (9 percent) used the number of children eligible to receive medical assistance under the Medicaid program.

Districts may use a different poverty measure for their middle and high schools, although very few choose this option. Virtually all districts with elementary and secondary schools used the same poverty measures at both levels. Only one percent chose the alternative of estimating secondary school poverty levels based on those of their feeder elementary schools.

Using one or more of the poverty measures listed above, districts must determine which schools are eligible to receive Title I funds. Eligible schools are those serving the highest percentages of students in poverty. To determine a school's relative status, all of the schools in the district may be ranked irrespective of grade level, or separate rankings by grade level may be used. In the latter case, for example, elementary and secondary schools may be included in different rankings. Forty percent of districts reported using district-wide rankings for determining Chapter 1 eligibility, while 29 percent used grade span rankings. The rest of the districts reported less than one thousand students in enrollment or only one school per grade span, so that ranking is not a requirement. A small number of districts (2 percent) had separate rankings for schools above 75 percent poverty.

In general, a school is eligible to receive funding if its poverty rate is at least equal to the district average or 35 percent (whichever is less). However, districts may choose to concentrate Title I funds on their neediest schools and limit school eligibility to a poverty level that is higher than the district-wide average. In deciding how many schools to serve with Title I funds, most districts reported that the most influential factors are district and state priorities (50 and 34 percent, respectively). Other "extremely influential" factors were a desire to serve as many schools as possible (34 percent), data on student performance (26 percent), and availability of other federal resources (15 percent).

Although some districts reported that a desire to concentrate Title I funds on fewer schools was "influential" (40 percent), few reported that this factor was "extremely influential" (4 percent) and nearly half said it was "not influential" (49 percent). Nevertheless, many districts reported school allocations that showed they were concentrating funds to some degree by serving fewer than the maximum number of schools that would be eligible under the law (52 percent of the sample districts) or by providing

larger allocations per low-income student to schools with higher poverty rates (35 percent of the sample districts).

At the school level, Title I targeting did increase significantly as a result of the 1994 reauthorization. The proportion of the highest-poverty schools (where 75 percent or more of the students are eligible for free or-reduced-price lunches) that receive Title I funds rose from 79 percent in 1993-94 to 96 percent in 1997-98 (Exhibit II-13).[4] Prior to the 1994 reauthorization, schools with moderate poverty rates were nearly as likely to receive Title I funds as the highest-poverty schools. By 1997-98, however, schools with higher poverty rates were much more likely to receive Title I funds than schools with lower poverty rates.

Exhibit II-13
Change in Proportion of Schools that Receive Title I Funds by School Poverty Level, 1993-94 to 1997-98

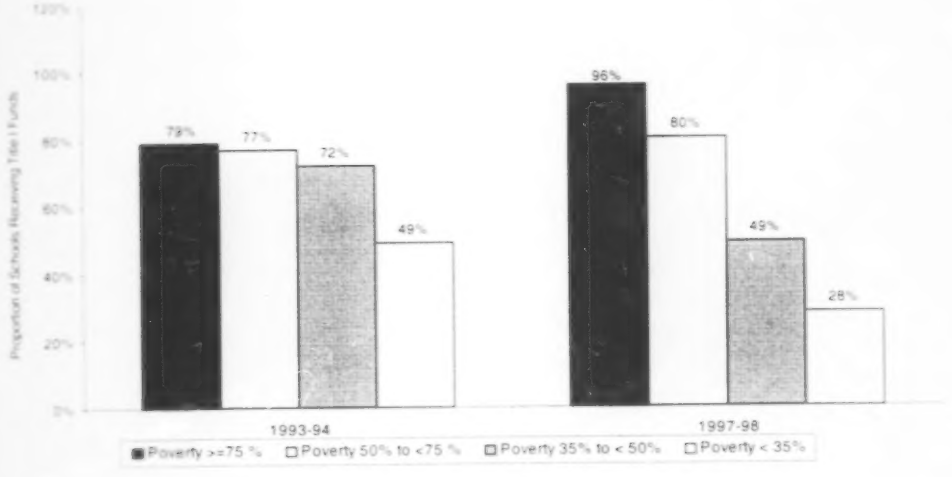

Exhibit reads: **In 1997-98, 96 percent of the highest-poverty schools received Title I funds, up from 79 percent of these schools in 1993-94.**[5]

[4] School poverty levels are based on the percentage of students eligible for the free and reduced-price lunch program because the census poverty data used for the district-level targeting analysis is not available at the school level. The subsidized lunch program provides a looser definition of "poverty" than the census poverty data. Eligibility for free lunches is set at 130 percent of the official poverty line, and eligibility for reduced-price lunches extends up to 185 percent of the poverty line. The number of students eligible for subsidized lunches is roughly double the number meeting the census poverty definition. Nonetheless, the subsidized lunch program provides the best source of data on low-income students at the school level.

[5] Data for 1993-94 is from Stullich, Donly, and Stolzberg (1999), *Targeting Schools: Study of Title I Allocations Within School Districts*, Washington, DC: U.S. Department of Education.

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A majority of Title I schools were found in the highest-poverty categories of schools. Schools with 50 percent or more low-income students accounted for 66 percent of all Title I schools, and the highest-poverty schools accounted for 35 percent of Title I schools (compared to 33 percent and 16 percent of all schools, respectively). Low-poverty schools (less than 35 percent low-income students) accounted for 21 percent of Title I schools, compared with 54 percent of all schools (Exhibit II-14).

Exhibit II-14
Distribution of Schools, Title I Schools, and Title I Funds by School Poverty Level

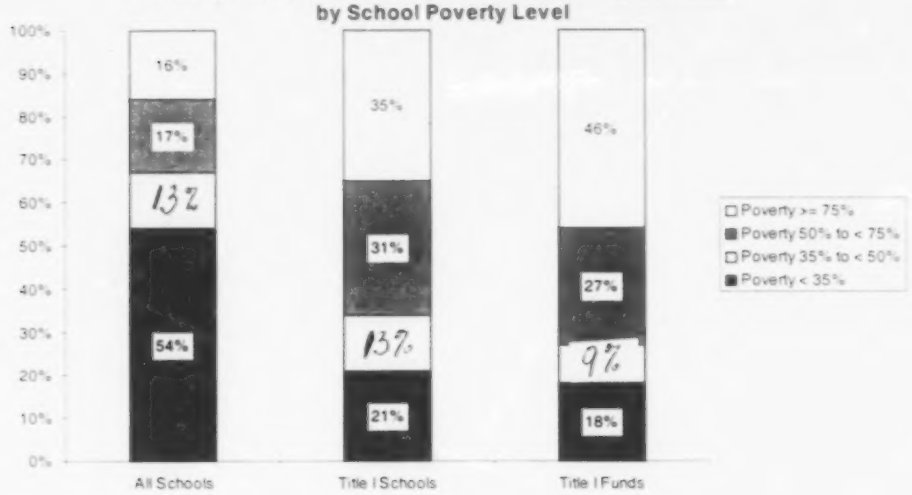

Exhibit reads: **The highest-poverty schools comprised 16 percent of all schools and 35 percent of all Title I schools, and received 46 percent of all Title I funds.**

Source: School allocation data provided by the sample districts

However, Title I *funds* were more concentrated on high-poverty schools than the distribution of Title I *schools* would suggest. The highest-poverty schools received nearly half (46 percent) of Title I funds allocated to schools, although they accounted for only 35 percent of all Title I schools. Schools with poverty rates of 50 percent or more received nearly three-fourths (73 percent) of Title I funds. In contrast, low-poverty schools received only 18 percent of Title I funds.

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Indeed, the share of Title I funds going to high-poverty schools was greater than their share of low-income students. The highest-poverty schools had 33 percent of the low-income students (and 14 percent of all students) but received 46 percent of the Title I funds. Conversely, low-poverty schools had 25 percent of the low-income students but received 18 percent of the Title I funds (Exhibit II-15).

Exhibit II-15
Distribution of Students, Low-Income Students, and Title I Funds, by School Poverty Level

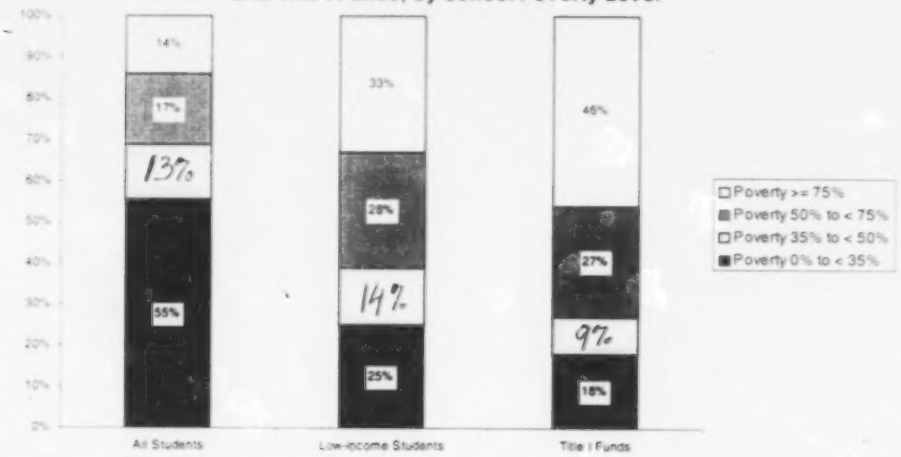

Exhibit reads: **The share of Title I funds received by the nation's highest-poverty schools (46 percent) is greater than their share of the nation's low-income students (33 percent) and total enrollment (14 percent).**

Source: School allocation data provided by the sample districts

This funding pattern is consistent with research evidence that high-poverty schools have disproportionately greater need for assistance than low-poverty schools. In high-poverty schools, the poverty level of the school influences the test scores of all students, including those from more advantaged families. Poor students in high-poverty schools are doubly at risk, with lower achievement levels than poor students in low-poverty schools.[6]

[6] Judith Anderson (1992), "Poverty and Achievement: Re-examining the Relationship between School Poverty and Student Achievement," paper presented at the annual meeting of the American Educational Research Association; U.S. Department of Education (1992), *National Assessment of the Chapter 1 Program: The Interim Report*, Washington, DC: Author, Exhibit 5-1; U.S. Department of Education (1986), *Poverty, Achievement, and the Distribution of Compensatory Education Services*, Washington, DC: Author, pp. 20-22.

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Although low-poverty schools were less likely to receive Title I funds, those that did receive funding received substantially larger Title I allocations per low-income student compared with schools in the higher poverty categories. The low-poverty category of schools received $771 per low-income student, on average, compared with $475 for the highest-poverty category of schools. Schools whose poverty rates were in between those of the highest- and lowest-poverty categories of schools received the lowest allocations per poor student. Overall, allocations for Title I schools amounted to an average of $472 per poor student (Exhibit II-16). These patterns were consistent for elementary schools and secondary schools as well as across all schools.

Exhibit II-16
Size of Title I School Allocations, by School Poverty Level

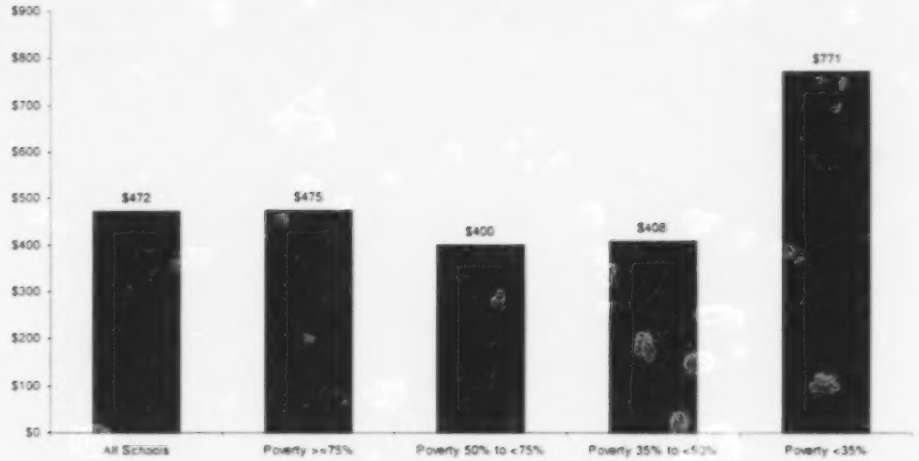

Exhibit reads: **The average Title I allocation per low-income student was $472 across all schools, $475 in the highest-poverty schools, and $771 in the low-poverty schools.**

Source: School allocation data provided by the sample districts

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School allocation data underestimate total school-level spending for Title I, because 8 percent of Title I funds are used for districtwide programs and services related to instruction and instructional support—services that affect teachers and students in schools throughout the district, although they are not allocated to individual schools (see Chapter III). These districtwide instruction-related services include teachers and instructional support staff who serve more than one school, districtwide preschool and summer school programs, and professional development (but not program administration). In addition, because the allocation data are based on FY 1997 appropriations, the average allocation amounts may seem low compared to current (FY 2000) appropriations levels, which are 9 percent higher than in FY 1997.

If the school allocation estimates are adjusted to take both of these factors into account, the average school funding level rises from $472 to $563 per low-income student for the 2000-01 school year.[7] These school funding levels range from $567 in the highest-poverty schools to $920 in the lowest-poverty schools, and from $591 across all elementary schools to $444 across all secondary schools.

Secondary schools received 15 percent of all Title I funds allocated to schools, substantially less than their share of the nation's poor students (33 percent). In part this is because secondary schools are less likely to receive Title I funds than elementary schools: only 29 percent of secondary schools received Title I funds in FY 1997, compared with 67 percent of elementary schools.[8] In addition, secondary schools that did receive Title I funds tended to receive smaller allocations than elementary schools ($372 and $495, respectively).

However, the highest-poverty secondary schools received allocations that were comparable in size to those in the highest-poverty elementary schools ($446 and $479 per low-income student, respectively). Moreover, changes made in the 1994 reauthorization resulted in a dramatic increase in the proportion of the highest-poverty secondary schools that receive Title I funds, from 61 percent in 1993-94 to 93 percent by FY 1997.[9]

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[7] This adjustment is determined by augmenting the Title I funds allocated to the schools, which amounts to 83 percent of the total, by the 8 percent of total Title I funds allocated to districtwide programs and services (of the remaining 9 percent, 8 percent is used for district program administration and 1 percent is allocated for Title I services in private schools). This figure is then adjusted to reflect the 8.9 percent increase in Title I appropriations from FY 1997 to FY 2000. The total adjustment factor is 1.194 [= 1.089 × (83+8)/83].

[8] Stullich, Donly, and Stolzberg (1999).

[9] Stullich, Donly, and Stolzberg (1999).

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Targeting of the other five federal education program funds to schools

In contrast to Title I, funds from other federal education programs are not typically allocated to individual public schools. Rather, they are more commonly used to implement districtwide programs and strategies, with somewhat wider participation by a greater number of schools. For Title II, Title IV, Title VI, and Goals, three-quarters or more of the districts reported that program funds were used either for all schools in the district or for all schools (or teachers) that wished to participate (Exhibit II-17).

Exhibit II-17
How Districts Targeted Federal Program Resources to Schools

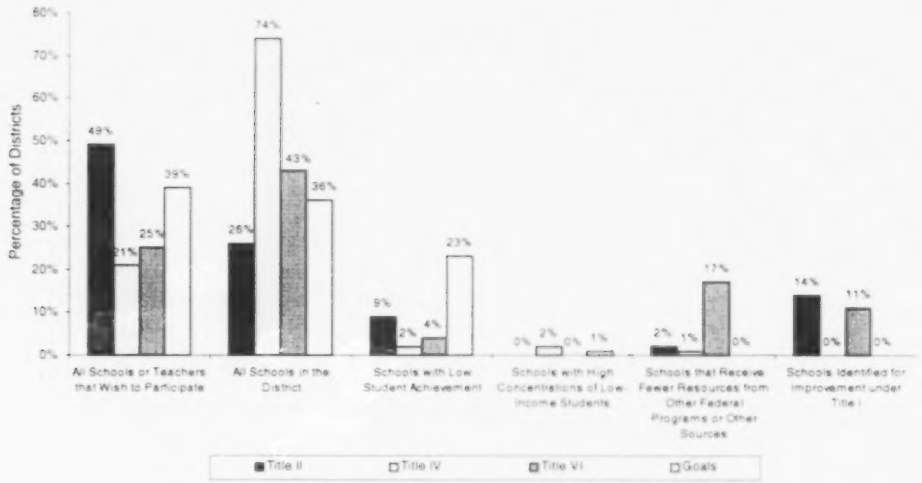

Exhibit reads: **Three-fourths of districts reported that Title II funds were used either for all schools in the district (26 percent) or for all schools or teachers that wished to participate (49 percent).**

Source: District Questionnaire

However, there were some exceptions to this pattern. Goals 2000 districts were somewhat more likely to target those funds to schools with low student achievement (23 percent of Goals districts). Some districts targeted Title II and Title VI resources to schools identified for improvement under Title I (14 percent and 11 percent, respectively).

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About one-sixth (17 percent) of districts reported that they targeted Title VI resources to schools that received fewer resources from other federal programs or other sources.

State compensatory education funds appear to be somewhat less targeted to the highest-poverty category of schools compared with Title I funds. Schools with poverty rates of 50 percent or higher account for 52 percent of the schools receiving state compensatory education funds, compared with 66 percent of Title I schools. Low-poverty schools account for 35 percent of schools receiving state compensatory education funds, compared with 21 percent of Title I schools (Exhibit II-18).

Exhibit II-18
Distribution of Schools Receiving Title I and State Compensatory Education Funds, 1997-98

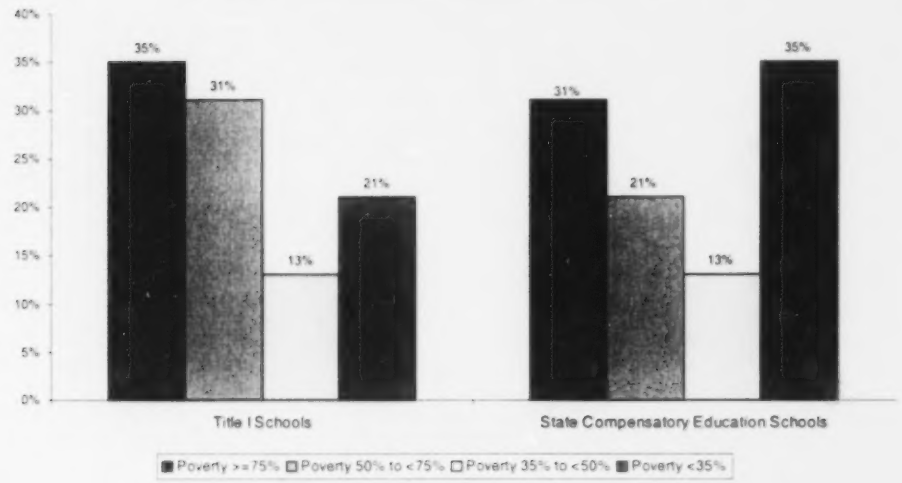

Exhibit reads: **In FY 1997, 35% of Title I schools were in the highest-poverty category of schools while 21% of Title I schools were in the lowest-poverty category of schools.**

Source: School allocations from SERFF sample districts.

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State compensatory education funds tended to be targeted to schools based on need rather than distributed widely throughout the district. One-third (34 percent) of districts indicated that state compensatory education programs were targeted to schools with low achievement, 28 percent targeted these funds to schools identified for improvement under Title I, and 20 percent targeted the funds to schools with high concentrations of low-income students (Exhibit II-19).

Exhibit II-19
How Districts Reported that State Compensatory Education Funds are Targeted to Schools

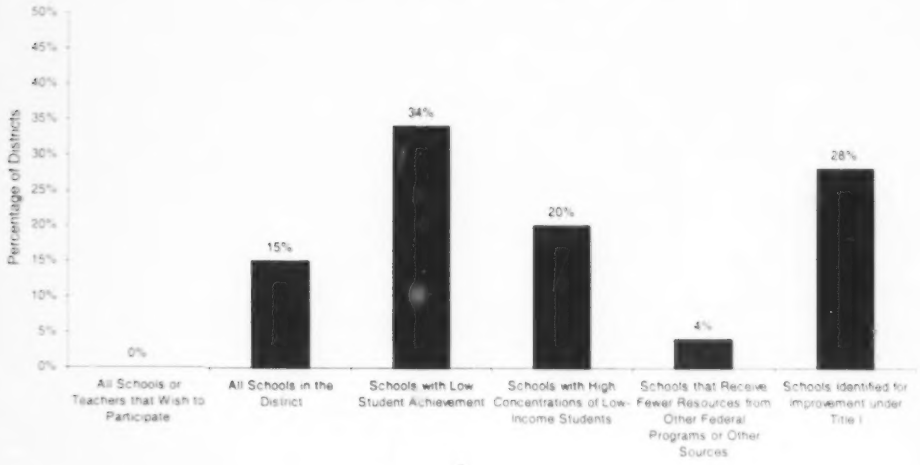

Exhibit reads: **Fifteen percent of district respondents with state compensatory education funds reported that they were targeted to all schools in the district.**

Source: District Questionnaire

The allocation of state compensatory education funds to schools shows some similarities to the federal Title I program, which is not surprising as both have the purpose of improving teaching and learning for at-risk students. Title I funds are currently allocated to schools solely on the basis of the number of low-income students in each school but under the previous Chapter 1 provisions were allocated to schools based on number of low-achieving students.

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Summary

Federal education programs in general were much more targeted to high-poverty districts than were state and local funds. Total revenues per student in the highest-poverty districts, however, were about 10 percent less than in the lowest-poverty districts. Across all districts, federal funds comprise 6.3 percent and Title I comprises 2.4 percent of total revenues.

Title I targeted the most funding to high-poverty districts, but other federal programs also targeted significant shares of funding to these districts. Districts in the highest-poverty quartile received one-half (50 percent) of Title I funds and about one-third of the funds from Title II (35 percent), Title III (36 percent), Title IV (33 percent), Title VI (34 percent), and Goals 2000 (33 percent). However, while the highest poverty districts received six times more Title I funding per student, they received the least (nearly 14 percent less) per poor student.

The 1994 reauthorization had little impact on district-level targeting. For all five programs in this study that existed in FY 1994, the distribution of funds among district poverty quartiles was virtually the same in FY 1997.

Comparisons of Title I to poverty-related education aid programs established by some states, referred to as state compensatory education programs, are of interest because of the similar objectives of these federal and state programs. Title I revenues per poor student exceeded state compensatory education funds in states with such programs by more than one-third for the years 1994-95 and FY 1997. However, the amount of funds provided through state compensatory education programs varied considerably across states, and in three states exceeded federal Title I funding. Similar to Title I, the highest poverty districts received the most compensatory education revenues per student, but less per poor student than the lowest-poverty districts.

Title I targeting at the school level increased considerably after the 1994 reauthorization. Title I funds went to nearly all (96 percent) of the highest-poverty schools in the 1997-98 school year, up from 79 percent in 1993-94. The highest-poverty schools received 46 percent of Title I funds allocated to schools in 1997-98, although they accounted for only 27 percent of Title I schools, and schools with poverty of 50 percent or more received 73 percent of Title I funds. Low-poverty schools received only 18 percent of the funds, but they tended to receive substantially larger allocations per low-income student compared with the highest-poverty schools.

Secondary schools received 15 percent of all Title I funds allocated to schools, substantially less than their share of the nation's low-income students (33 percent). They were less likely to receive Title I funds than elementary schools, and those that did receive Title I funds tended to receive smaller allocations. However, the highest-poverty secondary

schools received allocations that were comparable in size to those in the highest-poverty elementary schools. Moreover, changes made in the 1994 reauthorization resulted in a dramatic increase in the proportion of the highest-poverty secondary schools that receive Title I funds, from 61 percent in 1993-94 to 93 percent in 1997-98.

For the other federal programs in this study, most districts used the funds for services for all schools in the district or all schools (or teachers) that wanted to participate. Districts did not usually target these funds to schools with high concentrations of low-income students or low-achieving students.

Compared to Title I, state compensatory education funds appear to be somewhat less targeted to the highest-poverty category of schools. Schools with poverty rates of 50 percent or higher account for 52 percent of the schools receiving state compensatory education funds, compared with [illegible] percent of Title I schools.

Chapter III

Allocation of Federal Funds Between the District and School Levels

Funds for the six programs in this study may be used at the school or the district level for a variety of strategies for supporting teachers and students. For Title I, districts allocate a substantial share of the resources to individual schools to permit them to design and implement programs that meet the needs of their specific student populations. For the other five programs, funds are primarily used for districtwide programs and services related to instruction and instructional support—services that affect teachers and students in schools throughout the district, although they are not allocated to individual schools.

Title I is fairly unique in providing most of its funding to individual schools rather than being accounted for at the district level. In most cases schools do not receive individual dollar allocations from federal programs other than Title I or from the district's general fund; rather, they receive allocations of personnel and other resources and have access to professional development opportunities and other services. In other research, Goertz and Duffy found, in a study of 24 school districts with reputations for pursuing innovative reforms to improve teaching and learning, that most of these districts "retain control over the allocation of most personnel and non-personnel resources to schools. Schools have limited control over the size and composition of their staff. In most of the study sites, schools' budgetary authority is generally limited to the expenditure of Title I, state compensatory education, instructional and professional development funds and occasional grant monies."[1]

[1] Margaret Goertz and Mark Duffy, "Resource Allocation in Reforming Schools and School Districts," Margaret Goertz and Allan Odden (eds.), *School-Based Financing* (Corwin Press, 1999).

The present study examined how districts used federal programs funds available for the 1997-98 school year[2] for allocations to individual public schools, services for students in private schools, districtwide programs and services, and program administration. The first three categories are believed to be generally equivalent to instruction and instructional support.

For Title I, districts allocated 83 percent of the funds to individual public schools, while using an additional 1 percent for services for private school students and 8 percent for districtwide programs and services (Exhibit III-1). As shown in Chapter II, funds allocated to individual public schools amounted to an average of $472 per low-income student across all Title I schools. The remaining funds (8 percent) were used for program administration.

Exhibit III-1
Districts' Allocation of Federal Education Funds Between the District and School Levels[3]

Use of funds	Title I	Title II	Title IV	Title VI	Goals 2000*
Allocations for Individual Public Schools	83%	9%	8%	12%	6%
Services for Students in Private Schools	1%	4%	2%	3%	**
Districtwide Programs and Services	8%	83%	81%	80%	91%
Program Administration (District-Level)	8%	4%	9%	5%	4%
Total	100%	100%	100%	100%	100%

*Total is greater than 100% due to rounding.
**Less than 0.5%

Exhibit reads: **Districts allocate 83 percent of their Title I funds to individual public schools.**

Source: District federal program budget data.

[2] Total funds available in the 1997-98 school year for each of these federal programs includes the district's allocation from FY 1997 appropriations, plus any funds carried over from previous appropriations. Carry-over amounted to about 6.5 percent for Title I and ranged from a negligible amount for Goals 2000 to a high of 11.4 percent for Title II programs. If carry-over funds are excluded, the Title I allocations to individual public schools amount to about 80 percent of the Title I funds that districts received from the FY 1997 appropriations.

[3] Although Title III was included in this study, the number of districts providing adequate budget detail was not sufficiently large to permit reporting of the data. This was in part due to the fact that a relatively small percentage of districts received Title III relative to the other programs (i.e., only 18 percent of districts receive Title III funds). A supplemental data collection to obtain data for additional Title III districts is planned for Summer 1999.

In contrast, most of the funds for Title II, Title IV, Title VI, and Goals 2000 were used for services and resources to enhance instruction and instructional support throughout the district, rather than being allocated to individual schools. This approach is not surprising, because districts receive much smaller allocations from these programs in comparison to Title I. For example, Goals 2000 grants average $87,000 across all school districts and Title II allocations average $18,000, compared with $521,000 for Title I. While Title I funds may be of sufficient magnitude to be used for employing teachers or aides within individual schools, the smaller amounts of money for these other programs may be used more effectively by leveraging dollars from other funding sources and supporting districtwide efforts to improve teaching and learning through professional development, increased access to technology, programs designed to reduce student violence and drug abuse, acquiring instructional materials, developing and implementing standards and aligned assessments, and other strategies. The strategies that districts supported with these federal funds are discussed in the succeeding chapters of this report.

A small percentage of funds from these five programs supported services for students in private schools. Title I allocations for services for students in private schools amounted to 1 percent of total funds. For the other four programs, allocations for services for private school students ranged from a low of 0.1 percent for Goals 2000 funds to a high of 4 percent for Title II. These figures may underestimate the extent to which private school students benefit from federal program funds, because districts may use these funds to provide districtwide services and resources that are open to students in private schools (and their teachers), rather than allocating a specific amount of funds for this purpose. In such cases, it may be difficult for districts to place a precise value on the amount of federal program resources used for private school students.

Program administration at the district level ranges from a low of about 4 percent of Title II funding to a high of about 9 percent for Title IV. These funds primarily include salaries and benefits for district federal program coordinators and administrative support staff, as well as contributions to indirect costs.

Summary

Title I differs from most federal programs (as well as from state and local revenues) in that most of its funds are allocated to individual public schools. Districts allocated four-fifths (83 percent) of their Title I funds to individual public schools and used an additional 1 percent for services for private school students; districts used 8 percent of their Title I funds for districtwide programs and services and 8 percent for program administration.

In contrast, funds for the other five programs were primarily used for services and resources to enhance instruction and instructional support throughout the district, rather than being allocated to individual schools. While Title I funds may be of sufficient magnitude to be used for employing teachers or aides within individual schools, the smaller amounts of money that districts receive from these other programs may be used more effectively by leveraging dollars from other funding sources and supporting districtwide efforts to improve teaching and learning.

Program administration at the district level ranges from a low of about 4 percent of Title II funding to a high of about 9 percent for Title IV. These funds primarily include salaries and benefits for district federal program coordinators and administrative support staff, as well as contributions to indirect costs.

Chapter IV

Comparability of State and Local Resources in Title I and Non-Title I Schools

Title I resources are intended to help close the achievement gap between high- and low-poverty schools by providing additional resources to the schools with the greatest needs. The Title I resources are intended to "supplement, not supplant" the base of state and local resources that would be provided in each school in the absence of the Title I program. Moreover, that base of state and local resources is supposed to be comparable in Title I and non-Title I schools. Indeed, if school districts compensated for the addition of Title I funds in their highest-poverty schools by reducing the amount of non-Title I resources available to these same schools, the Title I program would be seriously hampered in its goal of enabling poor schools to close the achievement gap with more advantaged schools.

Since the comparability requirement was first enacted in 1970, policymakers have sought to find a balance between an effective mechanism for ensuring that resources are comparable and one that is not overly burdensome to administer. Regulations implementing the 1970 statute required districts to assure that all Title I schools were within 5 percent of the district average on five measures of comparability, including three student/staff ratios (pupils per certified teacher, pupils per other certified instructional staff, and pupils per noncertified instructional staff) and two measures of instructional spending (instructional salaries per pupil and other instructional costs per pupil). Since then, the requirement has been relaxed to a 10 percent tolerance on two measures: pupils per instructional staff and instructional salaries per pupil. In addition, Congress added a statutory provision in 1981 that deemed a school district to have met the comparability requirement if the district filed an assurance that it had a districtwide salary schedule and a policy to assure equivalence among schools in teachers, administrators, other staff, curriculum materials, and instructional supplies.

This study examines the comparability of school resources by comparing Title I and non-Title I schools on school-level personnel expenditures per pupil and the number of full-time equivalent (FTE) staff. This analysis includes all personnel expenditures and FTE staff that were not funded from Title I. However, unlike the traditional application of the standards of comparability which commonly compare schools within district boundaries, this study examines the implications of comparability across district boundaries. That is, the comparisons examine the comparability of Title I and non-Title I schools regardless of the district in which they are located. This analysis focuses on all personnel expenditures and FTE staff supported by non-Title I funds, and it includes both instructional and noninstructional staff. The analysis also compares these resource levels in high- and low-poverty schools, to explore whether these groups show wider disparities than Title I and non-Title I schools.[1] Finally, this chapter reports on the comparability of resources schools receive from private sources to explore the extent to which disparities in school resources might be exacerbated by contributions from parents and private organizations.

Most of this analysis focuses primarily on elementary schools. Elementary and secondary schools differ in their total staffing, the share of staffing resources devoted to instruction, pupil-teacher ratios, and teacher salaries, experience, and degree attainment. Because Title I schools are more likely to be elementary schools, combining staffing data for elementary and secondary schools can obscure differences between Title I and non-Title I schools. Results for secondary schools are not presented in most cases due to the relatively small sample of Title I secondary schools.[2]

[1] Although data on personnel expenditures do not provide a complete picture of school resources, personnel expenditures do account for approximately 80 to 85 percent of total school district spending, depending on whether you include private contractors who provide personnel services. Districts and schools typically do not keep records of total school-level expenditures because many expenses are commonly accounted for centrally and are not broken out by individual school. However, this study was able to estimate school-level personnel expenditures based on detailed personnel and payroll information collected for all staff in each sample school.

[2] The number of responding schools providing school staffing data included only 36 Title I secondary schools, compared with 233 Title I elementary schools. The comparisons of Title I and non-Title I secondary schools frequently show patterns that are opposite of the patterns for elementary schools. However, the comparisons of high- and low-poverty secondary schools tend to be consistent with the patterns for elementary schools. The comparability data for secondary schools are provided in the Technical Appendix to this report, but caution is warranted in interpreting these data.

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Comparability for Title I and non-Title I schools

School personnel expenditures per pupil

Across all schools, the base amount of non-Title I expenditures on school staff was about the same in Title I and non-Title I schools ($3,664 and $3,620 per pupil, respectively). At the elementary level, Title I schools spent 5 percent less than non-Title I schools. At the secondary level, Title I schools spent 7 percent more (Exhibit IV-1).

Exhibit IV-1
Comparability of Non-Title I Resources:
School-Level Personnel Expenditures Per Pupil
in Title I and Non-Title I Schools

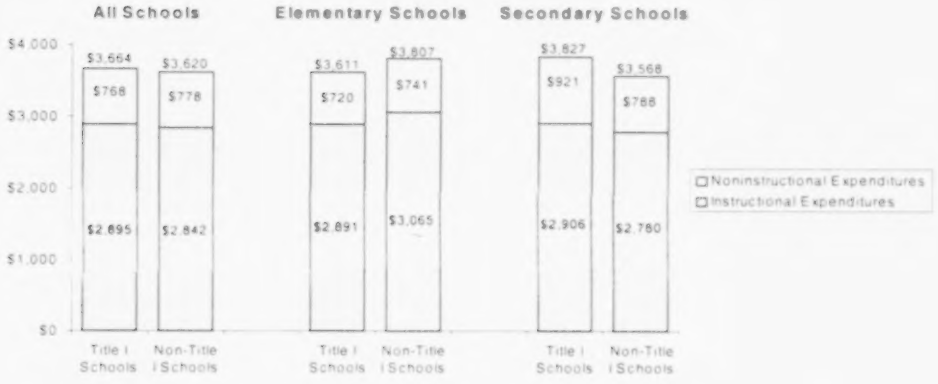

Exhibit reads: **Across all schools, total personnel expenditures per pupil from non-Title I sources were about the same in Title I and non-Title I schools ($3,664 and $3,620, respectively). Spending on instructional personnel was also about the same in both Title I and non-Title I schools ($2,895 and $2,842, respectively).**

Spending on instructional and noninstructional staff showed similar patterns of comparison between Title I and non-Title I schools. Overall, Title I and non-Title I schools had similar levels of expenditures on each of these two categories, with Title I schools having higher expenditures at the elementary level and lower expenditures at the secondary level.

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School staffing levels

School staffing data show a mixed picture of comparability between Title I and non-Title I elementary schools. Title I elementary schools had smaller average class sizes (21.4) than non-Title I schools (22.5), reflecting the larger number of classroom teachers in Title I schools (Exhibit IV-2).[3] However, average salaries for classroom teachers were about 11 percent lower in the Title I schools ($36,090) compared with the non-Title I schools ($40,458). The lower salaries in Title I schools explain why personnel expenditures are lower in Title I schools despite their somewhat larger numbers of teachers.

Exhibit IV-2
Comparability of Non-Title I Resources:
Classroom Teachers in Title I and Non-Title I Elementary Schools

	Title I Schools	Non-Title I Schools
Average Class Size	21.4	22.5
Average Teacher Salary	$36,090	$40,458
Average Years Teaching Experience	13.3 years	16.1 years
Percentage of Teachers with Master's Degree or Higher	40%	43%

Exhibit reads: **Title I elementary schools had smaller average class sizes (21.4) than non-Title I schools (22.5), but the average salary for classroom teachers was 12 percent lower in Title I schools ($36,090) than in non-Title I schools ($40,458).**

The lower teacher salaries in Title I elementary schools reflect, at least in part, the lower number of years of experience of teachers in these schools. Elementary classroom teachers averaged 13.3 years of experience in Title I schools, compared with 16.1 years in non-Title I schools. There was little difference between Title I and non-Title I schools in teachers' degree attainment. In Title I schools, 40 percent of classroom teachers had a master's degree or higher degree, compared with 43 percent in non-Title I schools.

[3] Average class size estimates in this report are school-based estimates computed by dividing all students by all classroom teachers in the school. These estimates would be affected by the existence of team teaching, which might tend to reduce average class size estimates. The class size averages include self-contained special education classrooms, i.e., those where a special education teacher works with the same group of students for the full school day. In elementary schools, special education teachers who were classroom teachers accounted for 3 percent of classroom teachers and 25 percent of special education teachers. These special education classroom teachers were included in the average class size figures because the study was unable to exclude special education students in these classes from the enrollment data. If these special education teachers are excluded from the class size calculations, the average class size for elementary schools rises from 21.7 to 22.3 students per classroom teacher.

Looking at all school instructional staff, Title I elementary schools had more instructional staff than non-Title I schools, before Title I funds were added (Exhibit IV-3). In a typical-size elementary school with enrollment of 500 students, Title I schools had 3.0 more full-time equivalent (FTE) staff than non-Title I schools (36.0 and 32.9 FTE staff, respectively).

In looking at specific types of instructional staff, the exhibit below shows special education teachers separately; one-fourth (25 percent) of elementary special education teachers are classroom teachers who serve the same group of students for the full day, while three-fourths are resource teachers who work with students from other classrooms. Title I schools had more regular classroom teachers (22.8 vs. 21.9), more special education teachers (3.1 vs. 2.2), and more teacher aides (6.8 vs. 4.7). However, Title I schools had fewer resource teachers (3.3 vs. 4.2).

Exhibit IV-3
Comparability of Non-Title I Resources:
Number of FTE Instructional Staff Per School of 500 Students
in Title I and Non-Title I Elementary Schools

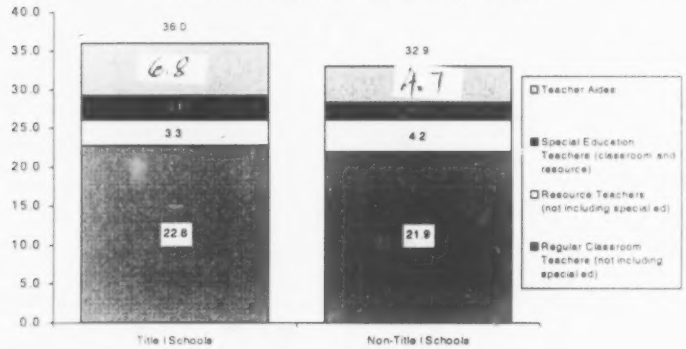

Exhibit reads: **For a typical-size elementary school of 500 students, Title I schools had 3.0 more instructional staff (36.0 FTE staff) than non-Title I schools (32.9) before Title I funds were added.**

Title I elementary schools had more noninstructional staff than non-Title I elementary schools did (10.4 vs. 10.1). The total number of school staff (both instructional and noninstructional) was greater in Title I schools (46.3) than in non-Title I schools (43.1).

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Comparability within districts and across districts

To what extent are the differences in resource levels between Title I and non-Title I schools related to differences in the comparability of resources among schools within the same school district, as opposed to differences in resource levels across school districts? This study was not able to directly examine comparability within districts, because it collected school resource data only for a sample of schools within each district, and the sample was not large enough to produce reliable estimates for individual school districts. However, the study did explore this issue by dividing the sample school districts into three groups based on their level of per-pupil revenues and comparing Title I and non-Title I elementary schools within the highest-revenue districts and within the lowest-revenue districts.[4]

Within the two district revenue groups, there were no clear patterns of differences between Title I and non-Title I elementary schools for personnel expenditures per pupil and average class size. In the high-revenue districts, expenditure levels were about the same in Title I and non Title I schools, while in the low-revenue districts, Title I schools had lower spending levels. Title I schools had smaller average class sizes in the low-revenue districts but larger class sizes in the high-revenue districts. In both groups of districts, average teacher salaries were lower in Title I schools.

[4] High- and low-revenue were defined based on the upper and lower thirds of the distribution of district revenues per pupil. Data on district revenues per pupil were based on data derived from the NCES F-33 fiscal database and the CCD non-fiscal database. The cut-off values that define the upper and lower thirds of the distribution of revenues per pupil in this dataset for the 1995-96 school year were $6,789 per pupil and $5,299, respectively. The actual mean values of revenue for the high- and low-revenue districts in the upper and lower-thirds of the distribution of revenues per pupil were $8,897 and $4,760, respectively.

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Exhibit IV-4
Comparability of Non-Title I Resources in High- and Low-Revenue Districts: Personnel Expenditures Per Pupil, Average Class Size, and Classroom Teacher Salaries, in Title I and Non-Title I Elementary Schools

	Personnel Expenditures Per Pupil	Average Class Size	Average Salary for Classroom Teachers
All Districts			
Title I Schools	$3,611	21.4	$36,090
Non-Title I Schools	$3,807	22.5	$40,458
High-Revenue Districts (upper tercile)			
Title I Schools	$4,931	21.7	$47,438
Non-Title I Schools	$4,927	20.8	$47,855
Low-Revenue Districts (lower tercile)			
Title I Schools	$3,068	20.9	$33,047
Non-Title I Schools	$3,165	22.8	$36,163

Differences between high- and low-revenue districts were much greater than differences between Title I and non-Title I schools within the two district revenue groups for two of the resource variables examined: personnel expenditures per pupil and average teacher salary. Personnel expenditures were about 60 percent higher in schools in the high-revenue districts, and teacher salaries were about 40 percent higher. Perhaps surprisingly, the high-revenue districts' Title I schools did not appear more advantaged in terms of their average class sizes, which were larger than those in the low-revenue districts' Title I schools. In other words, the high-revenue districts used their higher spending levels primarily to pay higher salaries to teachers and not to reduce class size. This may suggest that part of the reason for the higher spending is that these districts are in areas with a higher cost of living. In particular, regions with higher housing costs may receive higher property tax revenues but must pay higher salaries to attract staff who can afford to live in that higher-cost housing.

Comparability for high- and low-poverty schools

Because Title I funds go to about half of all schools (53 percent) and more than two-thirds of all elementary schools (70 percent), comparing resources in Title I and non-Title schools may not reveal the extent of disparities between the most disadvantaged and the most advantaged schools. The following section examines the comparability of resources for high- and low-poverty schools in order to determine whether these groups show larger disparities than were found for Title I and non-Title I schools.

School personnel expenditures per pupil

Overall, expenditures on school personnel in the highest-poverty schools were 4 percent lower than in low-poverty schools ($3,520 and $3,671 per pupil, respectively)—in contrast to Title I schools which had about the same amount of personnel expenditures as non-Title I schools (Exhibit IV-5). The disparity was greatest at the elementary level, where the highest-poverty schools spent 7 percent less than the low-poverty schools ($3,556 and $3,822 per pupil, respectively). At the secondary level, high- and low-poverty schools spent about the same amount.

Exhibit IV-5
Comparability of Non-Title I Resources:
School-Level Personnel Expenditures Per Pupil
in High- and Low-Poverty Schools

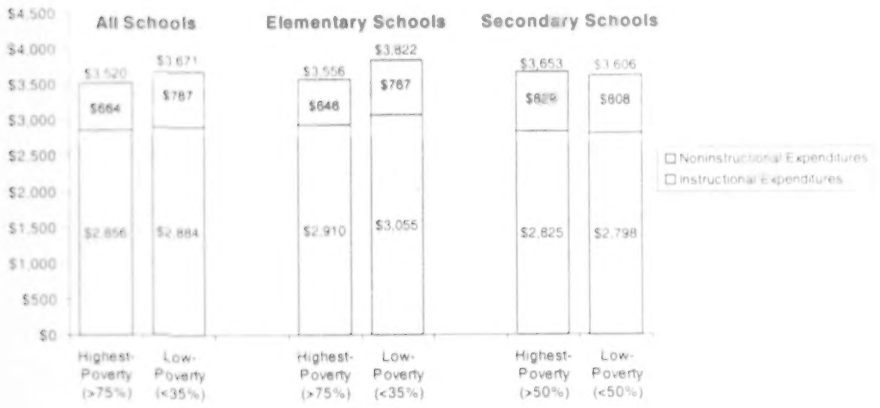

Exhibit reads: **The highest-poverty schools had lower personnel expenditures per pupil ($3,520) than low-poverty schools ($3,671)—a 4 percent difference. Spending on instructional staff was 1 percent lower in the highest-poverty schools than in low-poverty schools ($2,856 and $2,884, respectively), and spending on noninstructional staff was 16 percent lower ($664 and $787, respectively).**

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Spending on instructional staff was 1 percent less in the highest-poverty schools ($2,856, compared with $2,884 in low-poverty schools), and again this difference was more striking at the elementary level, where the highest-poverty schools had 5 percent lower expenditures ($2,910 versus $3,055). Spending on noninstructional staff showed the largest differences between high- and low-poverty schools, with the highest poverty schools spending 16 percent less ($664) than low-poverty schools ($787). It may be that schools with lower levels of resources tend to focus them on instructional staff, while schools with higher resource levels can afford more instructional support staff.

Comparing high- and low-poverty Title I schools shows larger differences than for all high- and low-poverty schools (Exhibit IV-6). The highest-poverty Title I schools spent 14 percent less on staff than the low-poverty Title I schools ($3,512 and $4,076 per pupil, respectively). This larger spending gap was due to the relatively high levels of spending in the low-poverty Title I schools compared to low-poverty schools overall ($4,076 per pupil, compared with $3,671 per pupil in low-poverty schools overall). Because most high-poverty schools receive Title I funds, the high-poverty Title I schools had similar average spending levels as high-poverty schools overall. It appears that low-poverty Title I schools are a relatively advantaged group in terms of their non-Title I resource levels, both in comparison to other low-poverty schools as well as to high-poverty schools. That is, the base level of spending prior to the addition of Title I resources is higher in Title I low-poverty schools than in non-Title I low-poverty schools.

Exhibit IV-6
Comparability of Non-Title I Resources:
School-Level Personnel Expenditures Per Pupil
in High- and Low-Poverty Title I Schools

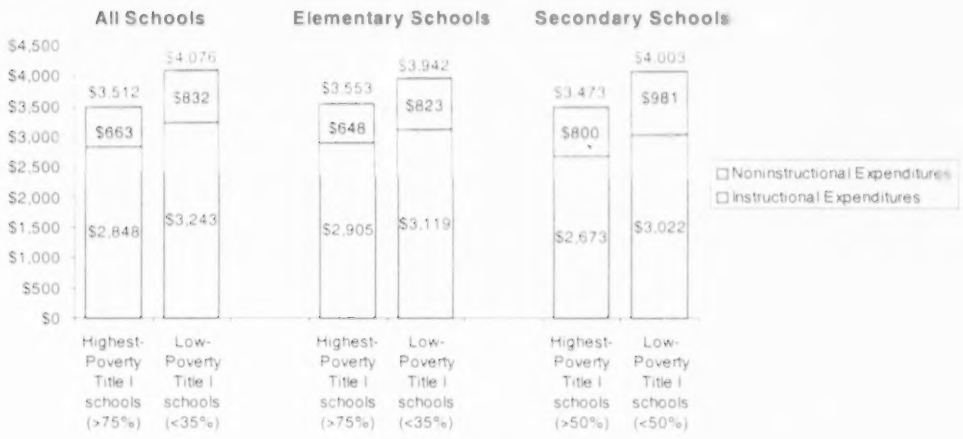

Exhibit reads: **Looking just at Title I schools, the highest-poverty Title I schools had much lower levels of personnel expenditures compared with low-poverty Title I schools ($3,512 and $4,076, respectively—a 14 percent difference).**

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School staffing levels

As with Title I schools, the highest-poverty elementary schools had smaller average class sizes (21.1) than low-poverty schools (22.9), reflecting the larger number of classroom teachers in the highest-poverty schools (Exhibit IV-7).[5] However, average salaries for classroom teachers were about 14 percent lower in the highest-poverty schools ($35,115) compared with low-poverty schools ($40,839). The lower salaries in the highest-poverty schools explain why personnel expenditures are lower in these schools despite their somewhat larger numbers of teachers.

Exhibit IV-7
Comparability of Non-Title I Resources:
Classroom Teachers in High- and Low-Poverty Elementary Schools

	Highest-Poverty Schools (Poverty ≥75%)	Low-Poverty Schools (Poverty <35%)
Average Class Size[6]	21.1	22.9
Average Teacher Salary	$35,115	$40,839
Average Years Teaching Experience	13.3 years	15.5 years
Percentage of Teachers with Master's Degree or Higher	37%	49%

Exhibit reads: **The highest-poverty elementary schools had smaller average class sizes (21.1) than low-poverty schools (22.9), but the average salary for classroom teachers was 14 percent lower in Title I schools ($35,115) than in non-Title I schools ($40,839).**

Classroom teachers in the highest-poverty schools also had fewer years of experience and were less likely to have an advanced degree. Elementary classroom teachers averaged 13.3 years of experience in the highest-poverty schools, compared with 15.5 years in low-poverty schools. Classroom teachers in the highest-poverty elementary

[5] As discussed previously, average class size figures in this report include certain special education teachers who worked with the same group of students for the full school day. See footnote 3 on page 52.

[6] Average class sizes in high-poverty elementary schools tended to be somewhat higher in large urban districts. In these districts, the average class size was 22.4 for the highest-poverty elementary schools (and 22.9 for low-poverty elementary schools, the same as the overall average for low-poverty elementary schools).

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schools were less likely to have a master's degree or higher degree (37 percent, compared with 49 percent in low-poverty elementary schools).

Looking at all school instructional staff, the highest-poverty elementary schools had more instructional staff than low-poverty schools (Exhibit IV-8). In a typical-size elementary school with enrollment of 500 students, the highest-poverty schools had 4.4 more FTE staff than low-poverty schools (37.5 and 33.2 FTE staff, respectively).

In looking at specific types of instructional staff, the exhibit below shows special education teachers separately; as discussed previously, one-fourth (25 percent) of elementary special education teachers are classroom teachers who serve the same group of students for the full day, while three-fourths are resource teachers who work with students from other classrooms. Title I schools had more regular classroom teachers (23.1 vs. 21.5), more special education teachers (3.0 vs. 2.3), and more teacher aides (8.2 vs. 5.1). However, the highest-poverty schools had fewer resource teachers (3.2 vs. 4.2).

Exhibit IV-8
Comparability of Non-Title I Resources:
Number of FTE Instructional Staff Per School of 500 Students
in High- and Low-Poverty Elementary Schools

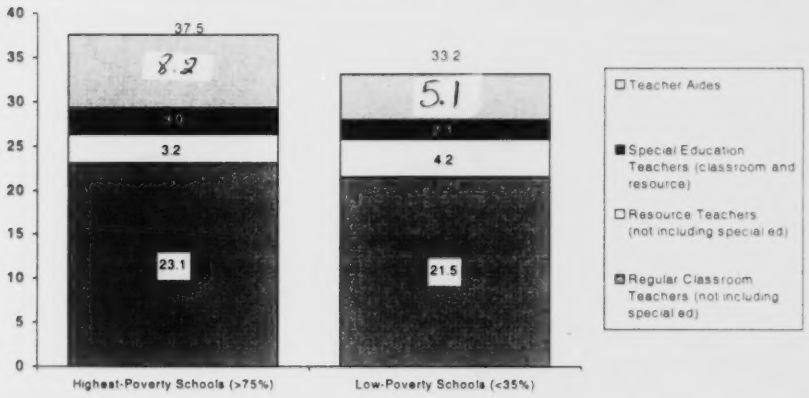

Exhibit reads: **For a typical-size elementary school of 500 students, the highest-poverty schools had 4.4 more instructional staff (37.5 FTE staff) than low-poverty schools (33.2).**

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The number of noninstructional staff was slightly lower in the highest-poverty schools (9.3) than in low-poverty schools (10.0). However, the total number of school staff (both instructional and noninstructional) was greater in the highest-poverty schools (46.8) than in low-poverty schools (43.2).

Comparability within districts and across districts

As discussed earlier in this chapter, this study was not able to directly examine within-district comparability due to the nature of the school sample, but it did explore this issue by comparing high- and low-poverty elementary schools in the highest-revenue districts and those in the lowest-revenue districts. Within the two revenue groups, there were no clear patterns of differences between high- and low-poverty schools in their personnel expenditures per pupil. Within the high-revenue districts, the highest-poverty schools had lower expenditures than the low-poverty schools, while within the low-revenue districts, expenditures were about the same in high- and low-poverty schools.

However, the differences observed previously for average class sizes and teacher salaries did hold true within each of the two revenue groups. Average class sizes were consistently better in the highest-poverty schools within each group of districts. Average teacher salaries were consistently lower in the highest-poverty schools within each group of districts.

Exhibit IV-9
Comparability of Non-Title I Resources in High- and Low-Revenue Districts: Personnel Expenditures Per Pupil, Average Class Size, and Classroom Teacher Salaries, in High- and Low-Poverty Elementary Schools

	Personnel Expenditures Per Pupil	Average Class Size	Average Salary for Classroom Teachers
All Districts			
Highest-Poverty Schools (Poverty ≥75%)	$3,556	21.1	$35,115
Low-Poverty Schools (Poverty <35%)	$3,822	22.9	$40,839
High-Revenue Districts (upper tercile)			
Highest-Poverty Schools (Poverty ≥75%)	$4,797	21.2	$41,665
Low-Poverty Schools (Poverty <35%)	$5,040	21.6	$50,296
Low-Revenue Districts (lower tercile)			
Highest-Poverty Schools (Poverty ≥75%)	$3,056	20.0	$31,749
Low-Poverty Schools (Poverty <35%)	$3,024	23.3	$36,212

Comparability of resources schools received from private sources

Concerns are sometimes raised about the extent to which disparities in school resources may be exacerbated by private contributions from individuals, parent organizations, and other sources outside the formal budget process. To explore this issue, school principals were asked to estimate the value of resources that they received from private sources, including books, computers, and assistance with building maintenance.[7] This analysis does not include the value of time donated by parent volunteers and others.

Overall, the amount of resources that schools reported receiving from private sources was small, averaging $29 per student, or about $14,400 in a typical-size school with enrollment of 500 students. Of this amount, about two-thirds was for books and instructional materials ($9 per pupil) and computer hardware and software ($9 per pupil), with an additional $5 per pupil for facilities maintenance and $7 for other resources (Exhibit IV-10).

Exhibit IV-10
Resources Schools Receive from Private Sources

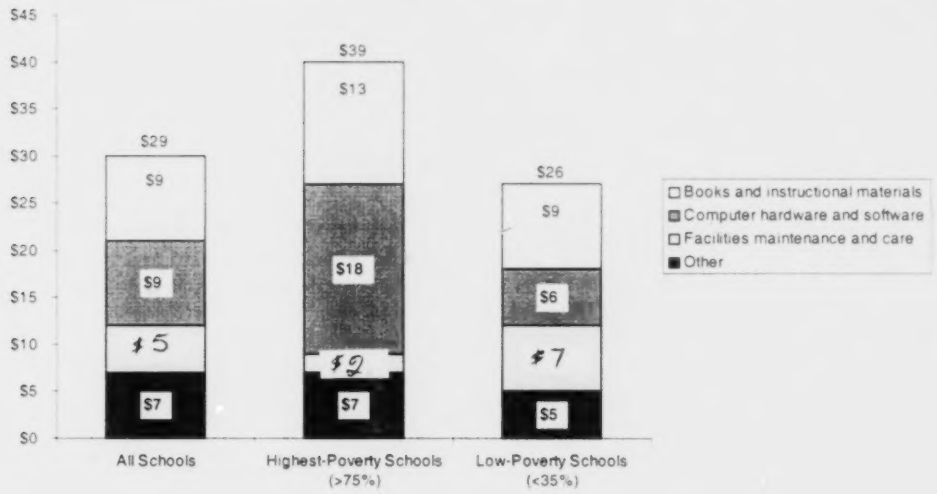

Exhibit reads: **Schools receive resources from private sources amounting to $29 per pupil in the average school, with about two-thirds going for books and instructional materials ($9 per pupil) and computer hardware and software (another $9 per pupil).**

[7] Specifically, the school survey asked schools to estimate the value of resources received for the 1997-98 school year from individuals and private and public agencies, excluding the school district, for instructional materials, textbooks, library books, and supplemental reference materials, computer software, computers or technology-related equipment, transportation for field trips, health and medical supplies, sports and recreational equipment, facilities maintenance and care (e.g., painting, landscaping, or repair services), and other resources.

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The highest-poverty schools reported receiving a larger amount of resources from private sources ($39 per pupil) than did the low-poverty schools ($26 per pupil). Contributions in the highest-poverty schools were particularly focused on computer technology ($18 per pupil) and books and instructional materials ($13 per pupil).

It may be that larger contributions from parents in more advantaged schools are offset by larger contributions from foundations and businesses in higher-poverty schools. However, this study did not ask schools about the specific sources of these private contributions, and further study would be needed to understand the reasons for the higher level of private contributions we found in higher poverty schools.

Summary

Overall, comparisons between Title I and non-Title I schools and between high- and low-poverty schools did not reveal striking disparities in resource levels.

Title I and non-Title I schools had similar levels of personnel expenditures from non-Title I funds ($3,664 and $3,620 per pupil, respectively). At the elementary level, Title I schools had more staff, particularly instructional staff, but teachers earned lower salaries and personnel expenditures were about 5 percent lower than in non-Title I schools. The lower salaries for classroom teachers in Title I elementary schools were due at least in part to their lower average years of experience. The percentage of teachers with advanced degrees was about the same in Title I and non-Title I elementary schools.

In the highest-poverty schools, spending on school staff was 4 percent lower than in low-poverty schools ($3,520 and $3,671 per pupil, respectively). The disparity was greatest at the elementary level, where the highest-poverty schools spent 7 percent less than low-poverty schools ($3,556 and $3,822 per pupil, respectively). As with Title I schools, the highest-poverty schools had more instructional staff, but teachers earned lower salaries. Classroom teachers in the highest-poverty schools had fewer years of experience and were less likely to have earned an advanced degree.

The highest-poverty schools reported receiving a larger amount of resources from private sources ($39 per pupil) than did low-poverty schools ($26 per pupil), but the overall size of these private contributions was small. Private contributions in the highest-poverty schools were particularly focused on computer technology ($18 per pupil) and books and instructional materials ($13 per pupil).

Chapter V

Use of Title I Resources to Improve Educational Opportunities for At-Risk Students

Title I provides support to help districts and schools improve teaching and learning, particularly for students who live in high-poverty communities and who are educationally disadvantaged. During the 1997-98 school year in which this study was conducted, Title I Part A provided $7.1 billion of additional funding to local school districts. As the largest federal program supporting elementary and secondary education, Title I is a major focus of this report, and this chapter provides a detailed examination of a number of resource issues that are specific to the Title I program. The first section of this chapter provides an overview of the strategies districts indicate they have for investing Title I funds and a delineation of what kinds of resources and services these funds purchase.

The second section describes the ways Title I programs are implemented in the schools. Some of the differences in the orientation of, and distribution of funds between, schoolwide versus targeted assistance schools are highlighted in this section.[1]

The third section examines the specifics of what Title I adds to the base-level educational program (i.e., described in Chapter IV) offered in public schools in terms of total school spending, spending on school personnel, and staffing levels.

The fourth section is devoted to exploring how Title I teachers and aides are utilized in schools. Specifically, this section looks at the allocation of teacher and aide time among alternative services, and the nature of the responsibilities given to teacher aides.

The last section reports on Title I parental involvement programs.

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[1] The distribution of Title I funds among high- and low-poverty schools is examined in Chapter II of this report.

In attempting to provide a comprehensive picture of what the Title I dollar buys, a key issue for this study was the appropriateness of examining how Title I resources are used in schoolwide programs. These schools are not required to track Title I expenditures separately, and indeed they are encouraged to combine Title I funds with other federal, state, and local resources in order to improve the overall quality of instruction in the school as a whole. There is a tension in policy circles between, on the one hand, a belief that schoolwide programs should integrate Title I funds with other resources so thoroughly that they cannot identify how they spent their Title I funds, and, on the other hand, a concern that we need to know how Title I resources are used in order to better understand the value added through Title I, consider whether Title I resources are being used in the most productive ways, and examine the level and intensity of resources provided in different types of schools. Because schoolwide programs now account for a majority of Title I funds, this issue is central to whether we are able to answer questions about the overall uses of Title I resources.

Regardless of whether the school operated a schoolwide or targeted assistance program, the principal was asked whether they could provide Title I budgets and identify which staff were funded through Title I. Data collectors explained to respondents in schoolwide programs that it was understood that schoolwide programs were not required to track Title I funds in this way. In all of the targeted assistance schools, it was possible to identify, through school documents or district payroll files, the staff who were affiliated with the Title I program. In contrast, it was not possible to determine which staff were affiliated with the Title I program in 18 of the 136 schoolwide programs for which school personnel or district payroll data were received. Alternatively stated, it was possible to identify some staff whose salaries were paid out of Title I funds in more than 87 percent of the schoolwide programs for which school personnel or district payroll data were received.[2]

It is the ability of virtually all Title I schools to identify specifically how Title I funds were used that facilitated the comparisons between schoolwide and targeted assistance programs presented in this chapter. It also permitted the construction of overall statistics on how Title I resources are used across all Title I schools. However, it is possible that this type of analysis may become less feasible in the future if more schoolwide programs combine Title I funds and other funds in such a way that they cannot distinguish specific expenditures made from Title I funds.

[2] It is important to note that there is quite a bit of variation across schools in the percentage of the school's Title I allocation which could be accounted for by Title I-funded personnel identified in the personnel and payroll data. In some cases, the personnel expenditures estimated in the analysis were substantially less than the Title I school allocation, while in other instances they were substantially greater than the Title I school allocation.

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What the Title I dollar buys

District strategies for using Title I funds

Districts reported that the most common Title I-funded strategy for improving student performance was to *provide supplemental targeted services to students.* Based on the percentage of districts reporting that a particular strategy was used a "great deal" (Exhibit V-1), the top three strategies for investing Title I funds were providing supplemental targeted academic services to students (62 percent), providing professional development linked to standards (45 percent), and supporting school-based improvement efforts (44 percent).

Exhibit V-1
District Use of Title I and State Compensatory Education Funds: Percentage of Districts Reporting that Funds Support Various Specific Strategies "A Great Deal"

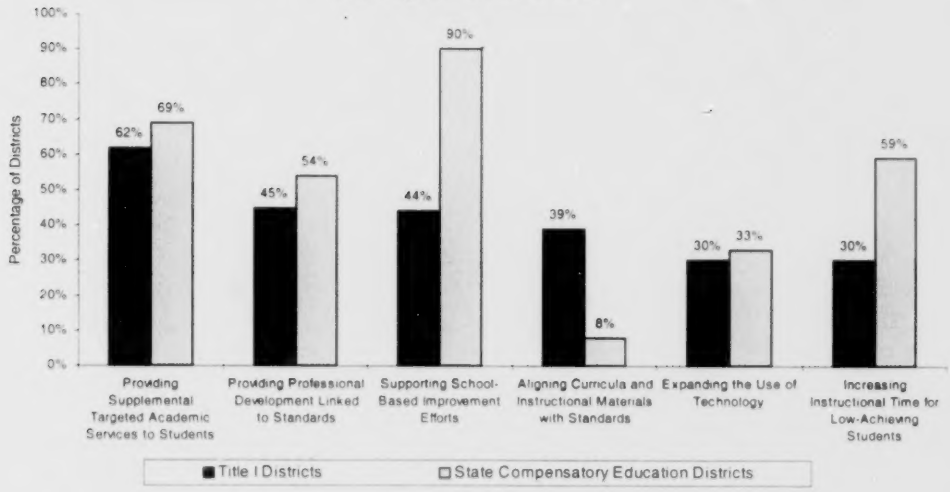

Exhibit reads: **Two-thirds of Title I districts (62 percent) and state compensatory education districts (69 percent) reported that Title I and state compensatory funds support *supplemental targeted academic services to students a great deal.***

Source: District Questionnaire

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While Title I funds were focused on targeted services to at-risk populations, those districts operating state compensatory education programs indicated that the top use for those funds was *supporting school-based improvement efforts* (90 percent)—the third-place priority for the use of Title I funds. The second and third priorities fell substantially behind: 69 percent for providing supplemental targeted academic services to students (the number one priority for Title I), and 59 percent for increasing instructional time for low-achieving students (the sixth place strategy for Title I funds). The difference in the priorities for Title I and state compensatory education programs may result largely from the desire of district decision makers not to commingle these funding streams.

Overall uses of Title I funds for instruction, instructional support, and program administration

Most Title I funds were used for instructional resources. Specifically, Title I was used to hire additional teachers and teacher aides, to provide instructional materials and computers, and to support other instructional services and resources. Overall, three-fourths (77 percent) of Title I funds were spent on instruction, with an additional 12 percent used for instructional support and the remaining 12 percent used for program administration (Exhibit V-2).

Exhibit V-2
Uses of Title I Funds for Instruction, Instructional Support, and Program Administration

	Total Expenditures ($ in millions)	Share of Total Expenditures
Instruction	**$5,473**	**77%**
Instructional Staff	4,385	62%
Teachers	3,342	47%
Teacher Aides	1,043	15%
Instructional Materials and Equipment	755	11%
Instructional Materials	468	7%
Pupil Technology	287	4%
Services for Students in Private Schools	77	1%
Districtwide Instructional Programs	256	4%
Preschool/Full-Day Kindergarten	141	2%
Extended-Time Programs	36	1%
Targeted Services for At-Risk Students	79	1%
Instructional Support	**$822**	**12%**
Professional Development	212	3%
Guidance Counselors, Psychologists, and Social Workers	155	2%
Student Health Services (School Nurse, Speech Therapist)	21	*
Library/Media Specialists and Library Aides	22	*
Other Instructional Support Staff (School Level)	242	3%
Implementing Standards & Assessments (District Level)	12	*
Parent Involvement (District Programs and Parent Liaison Aides)	158	2%
Administration	**$835**	**12%**
School Administration	241	3%
District Administration	594	8%
Total	**$7,130**	**100%**

*Asterisked values are less than 0.5%. Subtotals add to greater than 100 percent due to rounding.

Title I spending on instruction amounted to an estimated $5.5 billion for the 1997-98 school year, including $3.3 billion spent on teachers (47 percent of total Title I expenditures), $1.0 billion on teacher aides (15 percent), $77 million on services for students in private schools (1 percent), and $256 million for districtwide instructional programs such as preschool and full-day kindergarten programs, extended-time programs, and targeted services for at-risk students.[3]

Title I spending on instructional support amounted to an estimated $822 million for the 1997-98 school year, including $212 million spent on professional development (3 percent of total Title I expenditures). Student counseling and other support services (including guidance counselors, psychologists, social workers, and attendance officers) amounted to $155 million (2 percent), and student health services amounted to an additional $21 million. Title I expenditures on parent involvement programs and staff amounted to $158 million (2 percent). Library or media specialists and aides accounted for a relatively small amount of Title I expenditures ($22 million). Spending on other instructional support staff which included other paraprofessionals, parent liaisons, and other certified and non-certified staff amounted to $242 million or about 3 percent of the total budget. Funds budgeted for implementing standards and assessments amounted to $12 million, but the value of staff time devoted to developing and implementing state and district standards would likely add significantly to the total Title I investment in standards implementation.

Title I spending on program administration amounted to an estimated $835 million for the 1997-98 school year (12 percent of total Title I expenditures). School-level administration amounted to $241 million (3 percent) and district-level administration amounted to $594 million (8 percent).

Although this study did not collect information on the uses of all school district funds for instruction, instructional support, and other activities, we can compare the above Title I expenditure data to data on school district expenditures from all sources collected by the National Center of Education Statistics through the Common Core of Data (CCD) survey.[4] It should be noted that these two data sources may differ somewhat in their

[3] The figures for preschool/full-day kindergarten and extended time are only for those programs funded at the district level and do not include similar services supported by Title I at the school level. For preschool, the study can provide a total estimate that includes both districtwide programs and school staff who work with preschool students; this total is estimated at $76 million. The study is not able to provide similar estimates of total Title I support for full-day kindergarten or extended time programs.

[4] National Center for Education Statistics (1999). Digest of Education Statistics: 1999 (Washington, DC: National Center for Education Statistics). Table 168.

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definitions of instruction, instructional support, and administration.[5] Based on these two data sources, the share of Title I funds used for instruction (77 percent) appears to be substantially greater than the share of total school district current expenditures used for instruction (62 percent). Similarly, the share of funds used for instructional support appears somewhat larger under Title I (12 percent) than for school district expenditures overall (9 percent). The share of funds used for administration appears similar for Title I (12 percent) and district expenditures overall (11 percent). The remaining school district expenditures (18 percent) were used for building operation and maintenance (10 percent), transportation (4 percent), and food services (4 percent).

Title I programs in the schools

As reported in Exhibit III-1, districts allocated 83 percent of their Title I funds to individual public schools. While the district may have influence on how schools use these funds, the administrative staff within these schools have some discretion over the allocation and utilization of these Title I dollars. However, it is important to reiterate that additional Title I dollars beyond these school allocations actually reach the schools and the students they serve through districtwide instructional programs such as preschool and full-day kindergarten, extended time programs, and targeted services for at-risk students referenced in Exhibit V-2.[6]

Schools may use their Title I funds either for targeted assistance programs or schoolwide programs. Targeted assistance programs, as the name implies, target Title I resources and services to specific "Title I students" who have been identified as most at risk of school failure. In contrast, schoolwide programs may use Title I funds to improve the quality of educational programs and services throughout the school. The 1994 reauthorization expanded eligibility for schoolwide programs to include all schools with poverty rates of 50 percent or higher (52 percent of all Title I schools). Previously, only schools with poverty of 75 percent or higher (25 percent of Title I schools) could operate schoolwide programs.

[5] For comparison purposes, this analysis combined certain CCD expenditure categories in order to more closely match the categories used in this report for Title I expenditures. The CCD-based figure for "instructional support" combines the CCD expenditure categories of instructional staff services and student support. The CCD-based figure for "administration" combines the CCD expenditure categories of general administration, school administration, and other support services (which includes business support services, central support services, and other support services).

[6] It is important to note that it was not always apparent in the data collection activities with the schools that were carried out for this study which programs were district operated and which were funded out of school level allocations of Title I dollars.

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In the 1997-98 school year, schoolwide programs accounted for nearly half (45 percent) of Title I schools and an even higher share (60 percent) of Title I funds (Exhibit V-3). The relatively larger allocation of funds to schoolwide programs reflects the fact that these schools tend to have higher poverty levels and thus greater numbers of low-income students.

Exhibit V-3
Distribution of Title I Schools and Funds Between Targeted Assistance and Schoolwide Programs

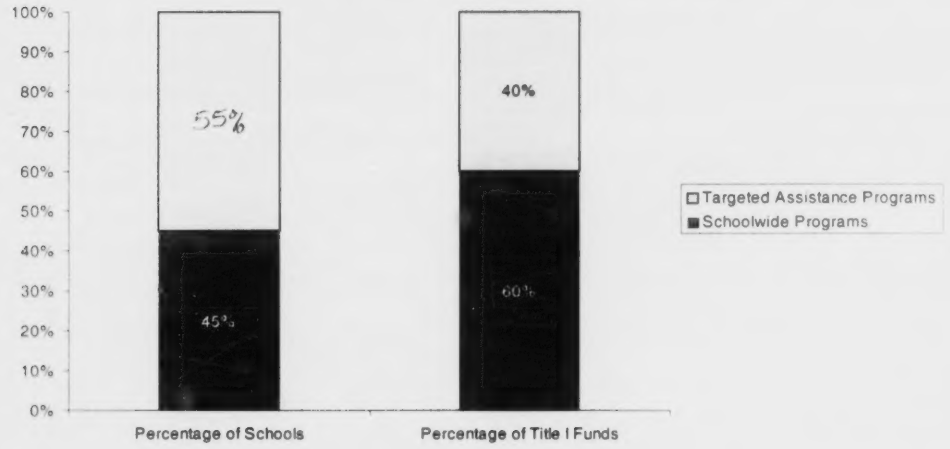

Exhibit reads: **Schoolwide programs accounted for 45 percent of Title I schools and 60 percent of Title I funding for schools.**

Source: School allocation data provided by the sample districts

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Schoolwide programs

More than four-fifths (82 percent) of the Title I schools that are eligible to operate schoolwide programs are now doing so, and most of the remaining schools (12 percent) are considering implementing schoolwide programs. These figures show a marked change since the 1990-91 school year, when a study found that nearly half of principals in Title I schools eligible to operate schoolwide programs were not aware of this option.[7] Since that time, the number of schoolwide programs has grown dramatically, and lack of familiarity with the schoolwide option no longer appears to be a factor limiting the establishment of schoolwide programs.

A substantial proportion of the schools currently operating schoolwide programs have been doing so for less than two years (41 percent of elementary schoolwides and 57 percent of secondary schoolwides). This finding is not surprising given the rapid growth in the use of the schoolwide option in recent years.

Three-fourths (73 percent) of all schoolwide programs reported that they combined their Title I funds with other federal, or state and local, resources to support schoolwide activities. However, in most cases schools do not receive specific allocations from federal programs other than Title I or from the district's general fund. Rather, they receive allocations of personnel and other resources, and have access to professional development opportunities and other services.[8] Thus, while these schools appear to be integrating non-Title I resources into their schoolwide programs, they are probably not commingling funds in a fiscal sense.

Principals of schoolwide programs reported that the federal resources most commonly used by their schools were Title IV (43 percent) and Title II (35 percent), followed by Goals 2000 (21 percent) and Title VI (17 percent). Schoolwide programs also reported combining resources from private sources (41 percent) and state compensatory education programs (33 percent).

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[7] Mary Ann Millsap, Marc Moss, and Beth Gamse (1993). *The Chapter 1 Implementation Study Final Report: Chapter 1 in Public Schools* (Washington, DC: U.S. Department of Education).

[8] For example, in a study of 24 school districts with reputations for pursuing innovative reforms to improve teaching and learning, Goertz and Duffy found that most of these districts "retain control over the allocation of most personnel and non-personnel resources to schools. Schools have limited control over the size and composition of their staff. In most of the study sites, schools' budgetary authority is generally limited to the expenditure of Title I, state compensatory education, instructional and professional development funds and occasional grant monies." Margaret Goertz and Mark Duffy, "Resource Allocation in Reforming Schools and School Districts," Margaret Goertz and Allan Odden (eds.), School-Based Financing (Corwin Press, 1999).

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Targeted assistance programs

School principals' objectives for the use of Title I funds were consistent with district priorities. When principals of Title I targeted assistance schools were asked about the objectives influencing decisions regarding how Title I funds were used (Exhibit V-4), 94 percent responded that *improving student achievement in reading and language arts* was "extremely important." Mathematics was a less frequent priority: 68 percent of the principals responded that the objective of *improving student achievement in mathematics* was "extremely important."

Exhibit V-4
Percentage of Title I Targeted Assistance Schools Indicating That Each Objective is "Extremely Important"

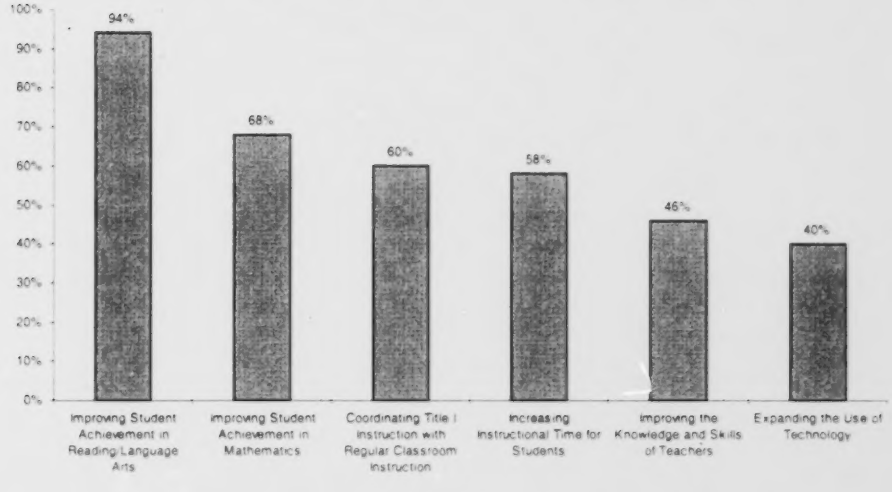

Exhibit reads: **Sixty-eight percent of schools responded that *improving student achievement in mathematics* was 'extremely important' in influencing their decision about how to use Title I funds in targeted assistance programs.**

Source: School Questionnaire

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In general, Title I schools operating targeted assistance programs reported an increase in the number of children served through Title I over the three-year period from 1994-95 to 1997-98. Over two-thirds (69 percent) of targeted assistance schools reported serving more students in 1997-98 than in 1994-95, while only 16 percent served fewer students in 1997-98 (Exhibit V-5). However, the amount of instructional time per Title I student tended to remain the same, with 61 percent of the schools reporting no change and roughly equal percentages reported increases or decreases (22 percent and 17 percent, respectively).

Exhibit V-5
Changes in the Implementation of Title I Targeted Assistance Programs in the Last Three Years

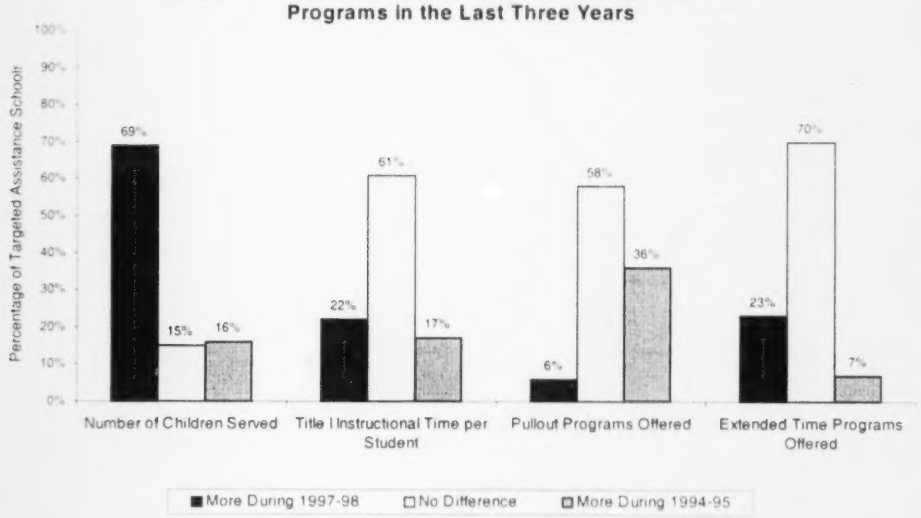

Exhibit reads: **The number of children served by Title I targeted assistance programs was greater in 1997-98 for 69 percent of the schools, unchanged for 15 percent of schools, and less for 16 percent.**

Source: School Questionnaire

Targeted assistance schools also reported a decrease in the use of pullout programs and an increase in the use of extended time programs. About one-third (36 percent) of the schools reported less use of pullout programs in 1997-98 than in 1994-95, while only 6 percent reported an increase in the use of pullout. Use of extended-time programs increased in 23 percent of the schools (and decreased in 7 percent of the schools) over the same period.

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Uses of Title I funds at the school level

Of the Title I funds that reached the school level, three-fourths (74 percent) were used for instructional staff and an additional 12 percent were used for other instructional expenditures: instructional materials (8 percent) and computers and other technology (4 percent) (Exhibit V-6). Schools spent their remaining funds on instructional support (10 percent) and program administration (4 percent). Elementary schools spent more of their Title I funds on instructional staff (80 percent) compared with secondary schools (43 percent). Secondary schools spent more of their Title I funds on instructional materials (13 percent), technology (14 percent), instructional support (20 percent), and program administration (12 percent).

Exhibit V-6
Uses of Title I Funds at the School Level, by School Grade Level

	All Title I Schools	Elementary Schools	Secondary Schools
Instruction	**86%**	**90%**	**69%**
Instructional staff	74%	80%	43%
• Teachers	57%	62%	30%
• Teacher aides	18%	19%	13%
Instructional materials	8%	7%	12%
Pupil technology	4%	2%	14%
Instructional support	**10%**	**8%**	**20%**
Professional development	1%	1%	2%
Student support (counselors, community liaison, therapists, health, library)	8%	6%	17%
Program administration	**4%**	**3%**	**12%**

Differences between high- and low-poverty schools and between schoolwide and targeted assistance programs were not as large. The highest-poverty schools spent less on instruction (87 percent) compared with low-poverty schools (96 percent), and more on instructional support and program administration (Exhibit V-7). Schoolwide and targeted assistance programs spent similar proportions of their Title I funds on most categories of expenditures, including instruction, instructional staff, technology, and instructional support.

Exhibit V-7
Uses of Title I Funds at the School Level, by Type of Title I School

	Highest-Poverty Schools (Poverty ≥ 75%)	Low-Poverty Schools (Poverty < 35%)	Schoolwide Programs	Targeted Assistance Schools
Instruction	**87%**	**96%**	**87%**	**86%**
Instructional staff	77%	87%	74%	75%
• Teachers	60%	70%	58%	56%
• Teacher aides	16%	18%	16%	20%
Instructional materials	8%	3%	9%	7%
Pupil technology	3%	5%	4%	4%
Instructional support	**8%**	**3%**	**10%**	**9%**
Professional development	1%	1%	1%	1%
Student support (counselors, community liaison, therapists, health, library)	8%	2%	9%	8%
Program administration	**4%**	**1%**	**3%**	**5%**

What Title I adds to school resources

This section of the report examines what Title I adds to school spending and staffing, in Title I schools overall and in different types of Title I schools, including schoolwide and targeted assistance schools, high- and low-poverty schools, and elementary and secondary schools. The first part of this analysis focuses on the total amount of Title I funds per low-income student allocated to schools.

The remainder of the analysis examines the percentage increase in school-level personnel (rather than total) expenditures that results from the addition of Title I funds. Districts and schools typically do not keep records of all school-level expenditures because many expenses (especially non-personnel expenditures) are commonly accounted for centrally and are not broken out by individual school. For example, instructional materials, books, capital outlay (e.g., on technology), and other such non-personnel items may be expended on behalf of the schools, but these are difficult to trace through school budgets to the specific schools to which the items are ultimately allocated. However, this study was able to estimate school-level personnel expenditures based on detailed personnel and payroll information collected about all of the staff in each sample school. Although data on personnel expenditures do not provide a complete picture of what Title I adds, personnel expenditures do account for approximately 95 percent of Title I allocations to schools.

In this analysis, Title I expenditures per student are calculated for three categories of students: all students, low-income students, and Title I participants. Each of these methods has its advantages and drawbacks in illuminating the issue of what Title I adds:

- **Expenditures per student.** This approach allows us to examine the overall impact of Title I on the level of personnel resources in the school. However, it does not provide a good measure of the intensity of Title I services, as Title I dollars are not necessarily used to serve all students in a school, particularly in targeted assistance schools.

- **Expenditures per low-income student.** This approach is useful because the amount of Title I funds each school receives is based on its number of low-income students. However, low-income students do not necessarily receive Title I services or benefit from the use of Title I funds in their school.

- **Expenditures per Title I participant.** This approach gives us information on the intensity of Title I services, but it is affected by the different definitions of "participant" in targeted assistance and schoolwide programs. Participants in targeted assistance schools represent a subset of students in the school who receive specific Title I services, whereas in schoolwide programs, all students in the school are assumed to benefit from the Title I resources and therefore all students are counted as Title I "participants."

In all three approaches, it is assumed that schools spend the same amount of personnel resources, on average, on Title I participants and low-income students that they do on the average student.

Finally, the analysis goes beyond expenditures to estimate the number of teachers, aides, and other instructional and noninstructional staff added through the use of Title I resources in different types of Title I schools.

Total Title I school allocations

Overall, Title I provided an additional $472 per low-income student in Title I schools (Exhibit V-8). Title I allocations were higher in elementary schools ($495) and lower in secondary schools ($372). Perhaps surprisingly, Title I allocations per low-income student were substantially higher in low-poverty Title I schools ($771 per low-income student in schools with poverty rates below 35 percent) than in higher-poverty Title I schools ($475 in schools with poverty rates of 75 percent or more). Title I allocations were also somewhat higher in targeted assistance programs ($495) than in schoolwide programs ($457). The higher level of Title I funding for targeted assistance programs reflects the higher average allocations in low-poverty schools; within each poverty group, targeted assistance and schoolwide programs receive similar funding levels.

Exhibit V-8
Average Title I School Allocations Per Low-Income Student in 1997-98, by School Grade Level, Poverty Level, and Type of Title I Program

Exhibit reads: **Title I added $472 per low-income student to the average Title I school in the 1997-98 school year. The amount of funding per low-income student was higher in elementary schools ($495), low-poverty schools ($771), and targeted assistance programs ($495).**

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- *What Title I adds to school personnel expenditures*

Overall Title I adds $236 per student to school-level personnel expenditures—a 6 percent increase over the base school-level personnel expenditures of $3,664 per pupil in Title I schools (Exhibit V-9). If Title I funds are calculated in terms of low-income students, then the amount added by Title I equals $434 per low-income student—a 12 percent increase over the non-Title I base. In terms of funding per Title I participant, the amount Title I adds to school staffing averages $412 per Title I participant—an 11 percent increase over the base.

Exhibit V-9
Amount that Title I Added to School-Level Personnel Expenditures in Title I Schools, 1997-98

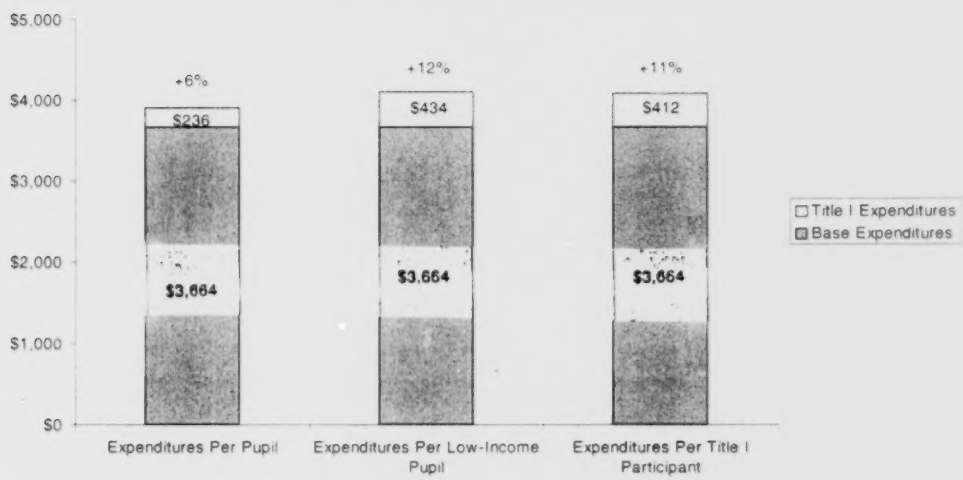

Exhibit reads: **Title I added $236 per pupil to personnel expenditures in Title I schools—a 6 percent increase over the base school-level personnel expenditures of $3,664 per pupil in Title I schools. When calculated in terms of low-income pupils, Title I added $434 to the base of $3,664, or a 12 percent increase. Title I personnel expenditures per Title I participant were somewhat higher, at $412 per participant, for an 11 percent increase over the base.**

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What Title I adds in elementary and secondary schools

The amount that Title I added to personnel expenditures was more than twice as high in elementary schools as in secondary schools. Compared to the base of non-Title I expenditures, Title I added $273 per pupil to staffing expenditures in elementary schools (an 8 percent increase) and $121 per pupil in secondary schools (a 3 percent increase) (Exhibit V-10).[9] Secondary schools tended to receive smaller Title I allocations per student and also had higher average levels of base (non-Title I) resources ($3,827 per student in secondary schools and $3,611 in elementary schools).

Exhibit V-10
Amount that Title I Added to School-Level Personnel Expenditures in Elementary and Secondary Title I Schools

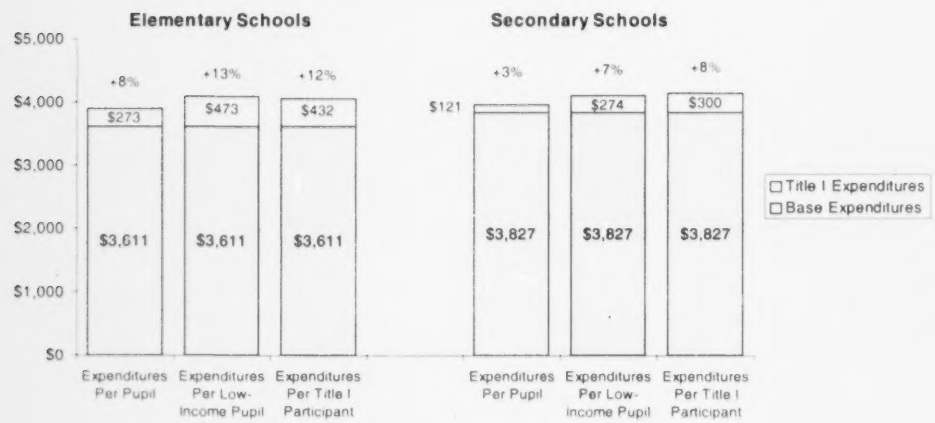

Exhibit reads: **Title I added more than twice as much to personnel expenditures per pupil in elementary schools ($273) than in secondary schools ($121).**

In terms of low-income students, Title I resources amounted to an additional 13 percent per low-income student in elementary schools and an additional 7 percent in secondary schools. In terms of Title I participants, Title I resources amounted to an additional 12 percent per Title I participant in elementary schools and an additional 8 percent in secondary schools.

[9] The share of total personnel expenditures provided through Title I is higher in elementary schools (7 percent) than in secondary schools (3 percent).

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What Title I adds in schoolwide and targeted assistance schools

The amount that Title I added to total personnel expenditures was higher in schoolwide programs than in targeted assistance schools. The following analysis focuses on elementary schools; secondary schools show similar patterns. Compared to the base of non-Title I expenditures, Title I added $317 per pupil to staffing expenditures in schoolwide programs (a 9 percent increase) and $227 per pupil in targeted assistance schools (a 6 percent increase) (Exhibit V-11).[10] Schoolwide programs tend to receive larger Title I allocations per student because they have more low-income students.

Exhibit V-11
Amount that Title I Added to School-Level Personnel Expenditures in Elementary Targeted Assistance Schools and Schoolwide Programs

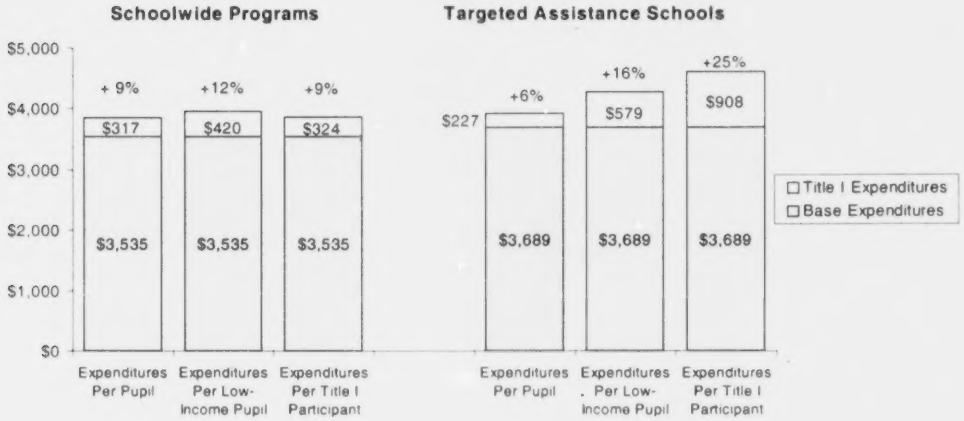

Exhibit reads: **Title I added more staffing resources in elementary schoolwide programs in terms of expenditures per pupil ($317) than in targeted assistance schools ($227). However, schoolwide programs had less than targeted assistance schools in terms of expenditures per low-income student ($420 and $579, respectively) and the difference is even greater in terms of expenditures per Title I participant ($324 and $908, respectively).**

[10] The share of total school-level personnel expenditures provided through Title I is higher in schoolwide programs (7 percent) than in targeted assistance schools (5 percent).

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However, the amount added per low-income student was less in elementary schoolwide programs ($420, or 12 percent) than in targeted assistance schools ($579, or 16 percent) because schoolwide programs received smaller allocations per low-income student.

In elementary targeted assistance programs, the amount added per Title I participant ($908, or 25 percent) was much greater than the amount added per low-income student ($579, or 16 percent), because the number of students these schools serve with Title I funds was less than their number of low-income students.

In elementary schoolwide programs, the amount added per Title I participant ($317, or an 9 percent increase) was about one-third as much as in targeted assistance programs ($908, or a 25 percent increase). The difference reflects the different definitions of "Title I participant" in targeted assistance and schoolwide programs. In targeted assistance programs, participants are students who are specifically identified to receive Title I services—whether through pullout, in-class programs, after-school or other extended-time programs, or other service delivery models. Schoolwide programs, on the other hand, have the flexibility to use Title I funds to improve the quality of instruction and services in the school as a whole, and do not have to identify particularly students for Title I services; therefore, all students in the school are counted as "Title I participants."

What Title I adds in high- and low-poverty schools

The amount that Title I added to total personnel expenditures was higher in high-poverty schools than in low-poverty Title I schools. Compared to the base of non-Title I expenditures, Title I added $355 per pupil to staffing expenditures in the highest-poverty elementary schools (a 10 percent increase) and $247 per pupil in low-poverty elementary schools (a 6 percent increase) (Exhibit V-12).[11] High-poverty schools tended to receive larger Title I allocations per student and had lower average levels of base (non-Title I) resources ($3,553 per student in the highest-poverty elementary schools and $3,942 in low-poverty elementary schools).

Exhibit V-12
Amount that Title I Added to School-Level Personnel Expenditures in High- and Low-Poverty Elementary Title I Schools

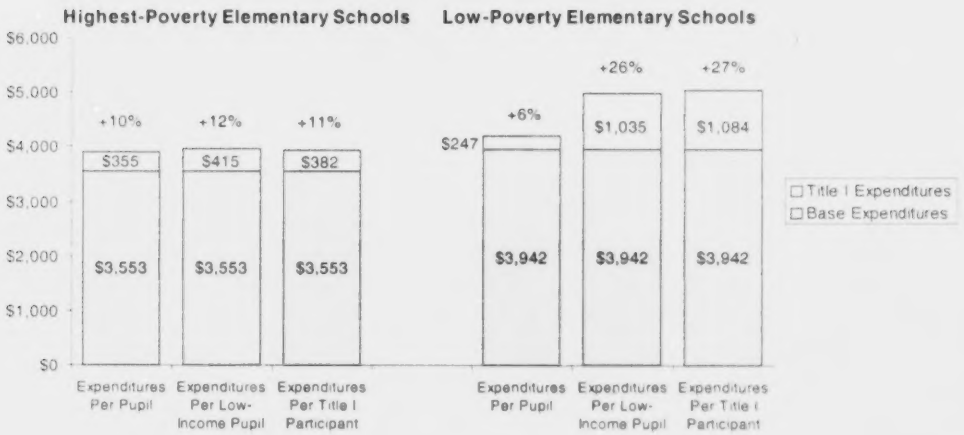

Exhibit reads: **In terms of personnel expenditures <u>per student</u>, Title I added more in the highest-poverty elementary schools ($355) than in low-poverty schools ($347). However, Title I personnel expenditures <u>per low-income student</u> were much lower in the highest-poverty Title I schools than in the low-poverty Title I schools ($415 and $1,035, respectively).**

[11] At the elementary school level, the share of personnel expenditures provided through Title I is 9 percent in the highest-poverty elementary schools and 6 percent in low-poverty elementary schools.

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In terms of low-income students, however, the story was reversed: Title I resources provided a much greater increase in funding per low-income student in the low-poverty Title I elementary schools (26 percent) than in the highest-poverty elementary schools (12 percent). Title I personnel expenditures per low-income student amounted to only $415 in the highest-poverty-elementary schools, compared with $1,035 in the low-poverty schools. This occured because the highest-poverty schools receive less Title I money per low-income student than did low-poverty schools. For the highest-poverty schools, funding per low-income student ($415) was not a great deal higher than funding per student ($355), because most of the students in these schools were low-income students. In contrast, low-poverty schools showed a much greater difference between funding per student ($247) and per low-income student ($1,035).

Funding per Title I participant showed a similar picture: the amount added through Title I was much greater in low-poverty Title I schools. In the highest-poverty elementary schools, Title I spending on school personnel amounted to $382 (an 11 percent increase), compared with $1,084 in the low-poverty schools (a 27 percent increase). For the highest-poverty schools, the amount of Title I funding per participant was very similar to the amount per student, because most of these schools were implementing schoolwide programs and therefore all of their students were counted as Title I "participants." In contrast, low-poverty schools showed a much greater difference between Title I funding per student and per participant, as these schools operated targeted assistance programs and were required to use Title I resources only for targeted low-achieving students.

What Title I adds to school staffing levels

In a typical-sized Title I elementary school with 500 students, Title I added a total of 4.4 additional staff (full-time equivalent (FTE) staff), raising the total number of staff from 46.3 to 50.8. In secondary Title I schools, using the same enrollment level of 500 students, Title I added a smaller number of staff (1.8), raising the total number of FTE staff from 39.7 to 41.5.

At the elementary level, the additional Title I staff were predominantly instructional staff, consisting of 2.1 additional teachers[12], 1.9 additional teacher aides, and 0.5 additional noninstructional staff (Exhibit V-13). At the secondary level, the staff added by Title I consisted of 0.6 teachers, 0.7 teacher aides, and 0.6 noninstructional staff.

Exhibit V-13
Number of FTE Staff Per School of 500 Students in Title I Elementary Schools, Before and After the Addition of Title I Funds

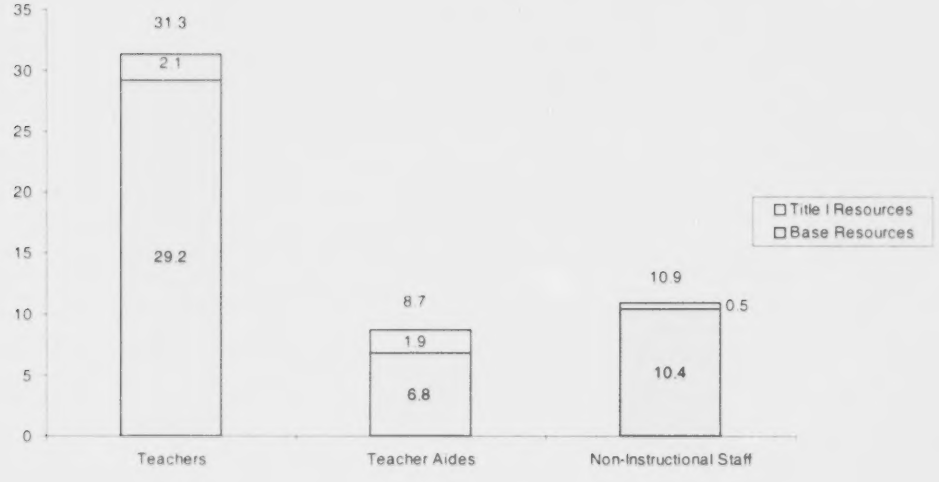

Exhibit reads: **In a typical-size elementary school of 500 students, Title I resources added 2.1 additional full-time equivalent (FTE) teachers, 1.9 FTE teacher aides, and 0.5 FTE noninstructional staff. Title I funds increased the total number of teachers from 29.2 to 31.3.**

[12] This figure includes Classroom teachers (excl special education), Special education classroom teachers, Resource teachers (excl special education) and Special education resource teachers.

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Title I added a larger number of staff in the highest-poverty schools than in low-poverty schools. In the highest-poverty Title I elementary schools, Title I added a total of 5.0 instructional staff, including 2.8 teachers and 2.3 teacher aides (Exhibit V-14). In low-poverty Title I elementary schools, Title I added a total of 3.6 instructional staff, including 1.9 teachers and 1.6 teacher aides.

Exhibit V-14
Number of Instructional Staff Added by Title I Resources, Per School of 500 Students, in High- and Low-Poverty Title I Elementary Schools

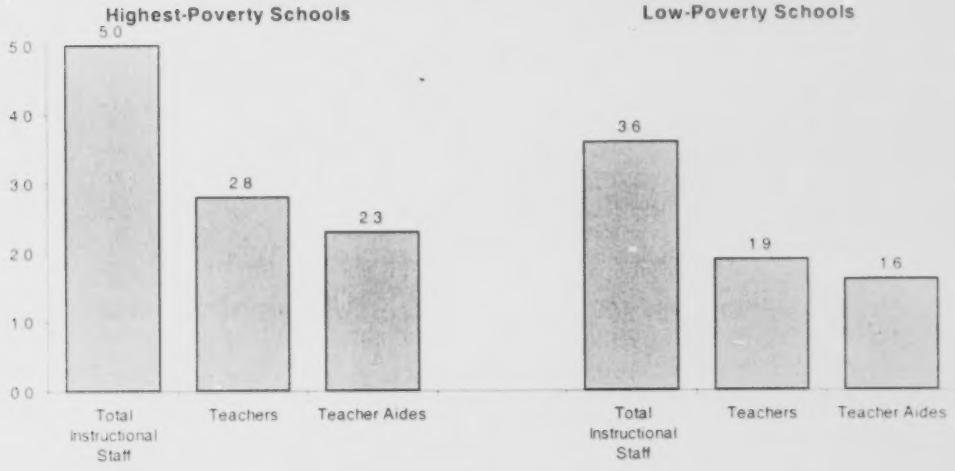

Exhibit reads: **In the highest-poverty elementary schools, based on a typical-size school of 500 students, Title I resources added 5.0 additional instructional staff, including 2.8 teachers and 2.3 teacher aides.**

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How Title I staff are used

The most significant resource that Title I adds to schools is the additional teachers and aides that are hired through Title I funds. Instructional staff accounted for three-fourths (74 percent) of the Title I funds used at the school level. Teachers accounted for three-fourths of Title I spending on instructional staff (76 percent), and teacher aides accounted for the remaining 24 percent. However, teacher aides accounted for a little more than half of all instructional staff paid through Title I funds; in terms of full-time equivalent (FTE) staff, the total number of Title I-funded teacher aides (68,724) was nearly equal to the number of Title I teachers (65,555) (Exhibit V-15).

Exhibit V-15
Use of Title I Funds for Teachers and Teacher Aides, 1997-98

	Teachers	Teacher Aides
Total Full-Time-Equivalent (FTE) Staff	66,002	65,555
Percent of Title I Instructional Staff	50%	50%
Percent of Title I Expenditures on Instructional Staff	76%	24%
Percent of Total Title I Expenditures	47%	15%
Average Annual Salary per FTE	$36,427	$12,627

Teacher aides accounted for a much smaller percentage of Title I spending relative to their proportion of FTE staff, because their cost per FTE aide was much lower than the cost per FTE teacher. The average annual salary for an FTE teacher aide ($12,627) was about 35 percent of the average salary for a Title I teacher ($36,427).

Title I teachers

Title I teachers reported that they spent 66 percent of their time in instructional activities (Exhibit V-16). This instructional time was primarily spent in resource rooms (i.e., pullout settings), which accounted for 49 percent of their time. Title I teachers also spent 14 percent of their time teaching students in in-class settings, and another 3 percent on informal tutoring.

Exhibit V-16
Percentage of Time Allocated by Title I Teachers to Various Instructional and Non-instructional Activities

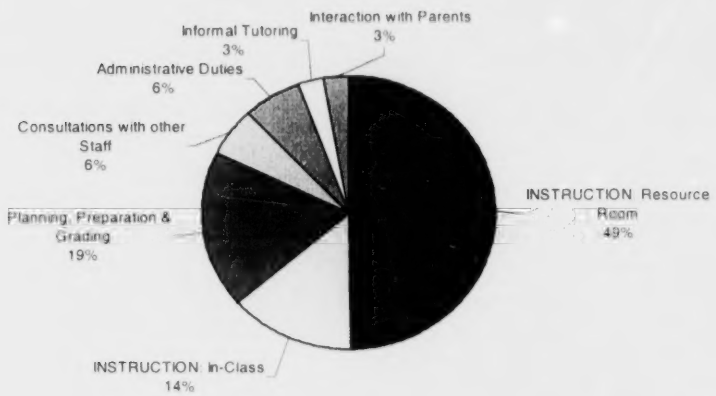

Exhibit reads: **Title I teachers used 49 percent of their time for instruction in resource rooms, and an additional 14 percent for in-class instruction.**

Source: Title I Teacher Questionnaire

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The remainder of Title I teacher time was divided among various noninstructional activities. Most of the noninstructional time was used for planning, preparation, and grading combined (19 percent of total time); administrative duties (6 percent); and consulting with other staff (6 percent).

Pullout programs in Title I schools

The 1994 reauthorization strongly encouraged schools to integrate Title I with the regular academic program and to use the pullout model (instruction outside the regular classroom) only when it is the best way to meet the needs of students. In the past, districts and schools often preferred to use Title I funds for pullout services to ensure that they did not violate the "supplement, not supplant" requirement for Title I targeted assistance schools. Although pullout programs can sometimes be effective, they also can be disruptive to student learning, and they can stigmatize participating students as low-achieving and often mean children are held to different standards.

Although targeted assistance schools have reduced their use of pullout programs (as shown in the previous section), this model continues to be widely used. About three-fourths (72 percent) of elementary targeted assistance schools served Title I students in pullout programs, and these programs served 63 percent of Title I students. However, in-class models (Title I-supported instruction in the regular classroom) were almost as prevalent, used in 66 percent of elementary targeted assistance schools and serving 65 percent of the Title I students. About 38 percent of elementary targeted assistance schools offered both pullout and in-class services.

Schoolwide programs appear less likely to use the pullout model compared with targeted assistance programs. About half (48 percent) of elementary schoolwide programs served students in pullout settings.[13] Pullout programs served 21 percent of the students in elementary schoolwides using the pullout approach and 10 percent of students in all elementary schoolwides.

[13] These data on pullout services for schoolwide programs may not be directly comparable to the data for targeted assistance programs. In schools operating targeted assistance programs, the SERFF questionnaire asked about services that were funded by Title I. In the schools operating schoolwide programs, the SERFF questionnaire asked about pullout services in general without regard to funding.

Title I paraprofessionals

Many schools use Title I funds to employ teacher aides or paraprofessionals, and Title I schools often make widespread use of aides as part of the instructional program. Although teacher aides accounted for only 15 percent of total Title I expenditures, they accounted for half of Title I-funded instructional staff. Most but not all Title I-funded paraprofessionals are teacher aides, and they are the focus of this section of the report. Other types of paraprofessionals include parent liaisons, library aides, and administrative aides. Teacher aides accounted for 94 percent of Title I spending on paraprofessionals and 95 percent of the total number of full-time equivalent (FTE) paraprofessionals. Parent liaisons accounted for 3 percent of FTE paraprofessionals and the remaining 2 percent were library and administrative aides.

The total number of paraprofessionals was considerably larger (107,356) than the number of FTE paraprofessionals (68,724), reflecting the fact that many paraprofessionals worked on a part-time basis (Exhibit V-17).

Exhibit V-17
Use of Title I Funds for Paraprofessionals, 1997-98

	Title I Expenditures ($ in millions)	Number of Title I Paraprofessionals	
		Full-time equivalents (FTEs)	Total Number
Title I Paraprofessionals	**$1,111**	**68,724**	**107,356**
Teacher Aides	1,043	65,555	102,296
Parent Liaisons	45	2,010	2,763
Library Aides	11	598	773
Administrative Aides	11	560	1,024

In the 1997-98 school year, almost all (98 percent) of the Title I teacher aides spent at least some of their time teaching or helping to teach students. Other responsibilities reported by a majority of Title I teacher aides included preparing teaching materials (84 percent of aides), correcting student work, taking roll, and other administrative duties (81 percent), testing students (77 percent), doing yard or cafeteria duty (56 percent), and working or meeting with parents (54 percent). Title I teacher aides were less likely to report working in the school office (23 percent), working in the library or media center (18 percent), or interpreting for LEP students (11 percent).

Although paraprofessionals are commonly used to teach or help to teach children, they usually lack the educational background that would qualify them for this role. Only 19 percent of Title I teacher aides in elementary schools had a bachelor's degree, and the figure was even lower in the highest-poverty elementary schools (10 percent) (Exhibit V-18).

Exhibit V-18
Percentage of Title I Teacher Aides with Bachelors Degrees

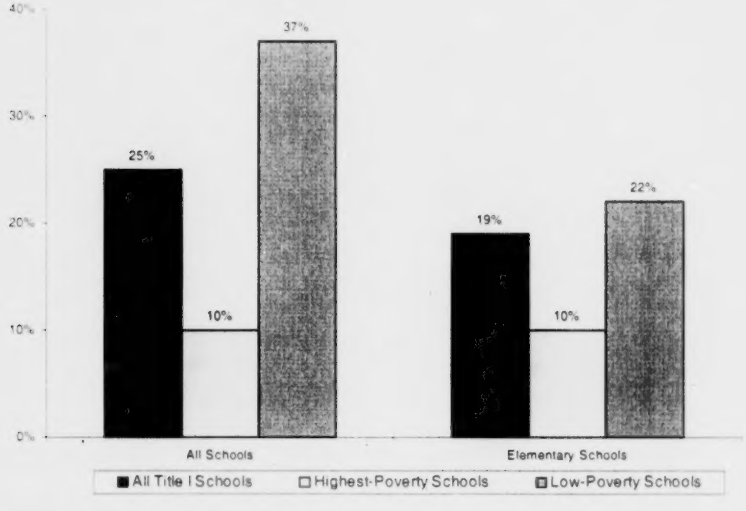

Exhibit reads: **At the elementary level, 19 percent of Title I aides had a bachelor's degree, as did 10 percent of aides in the highest-poverty schools.**

Source: Title I Teacher Aide Questionnaire.

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Nevertheless, Title I teacher aides reported that they spent most of their time teaching or helping to teach students (60 percent) (Exhibit V-19). Aides spent most of their remaining time on instructional support activities, including preparing teaching materials (10 percent); testing students, correcting student work, taking roll, and other administrative duties (12 percent); working in the library, media center, school office, or yard duty (13 percent); working with or meeting with parents (3 percent); and interpreting for LEP students (2 percent).

Exhibit V-19
Amount and Percentage of Time that Title I Teacher Aides Reported Spending on Various Activities

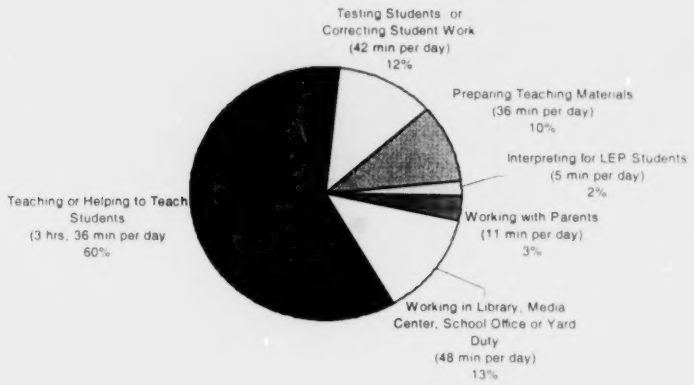
Testing Students or Correcting Student Work (42 min per day) 12%
Preparing Teaching Materials (36 min per day) 10%
Interpreting for LEP Students (5 min per day) 2%
Working with Parents (11 min per day) 3%
Working in Library, Media Center, School Office or Yard Duty (48 min per day) 13%
Teaching or Helping to Teach Students (3 hrs. 36 min per day 60%

Exhibit reads: **Title I aides spent 60 percent of their time teaching or helping to teach students.**

Source: Title I Teacher Aide Questionnaire

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Title I teacher aides in the highest-poverty schools spent less of their time teaching or helping to teach students (43 percent) compared with aides in low-poverty schools (70 percent) (Exhibit V-20). Aides without a bachelor's degree spent less time on this activity (60 percent) than did aides with a bachelor's degree or higher (65 percent), though these differences are small in magnitude. In the highest-poverty schools, Title I teacher aides spent an above-average share of their time working in the library, media center, or school office or on yard or cafeteria duty (24 percent).

Exhibit V-20
Percentage of Time that Title I Aides Report Spending on Various Activities by School Poverty, Grade Level, and Type of Title I Program

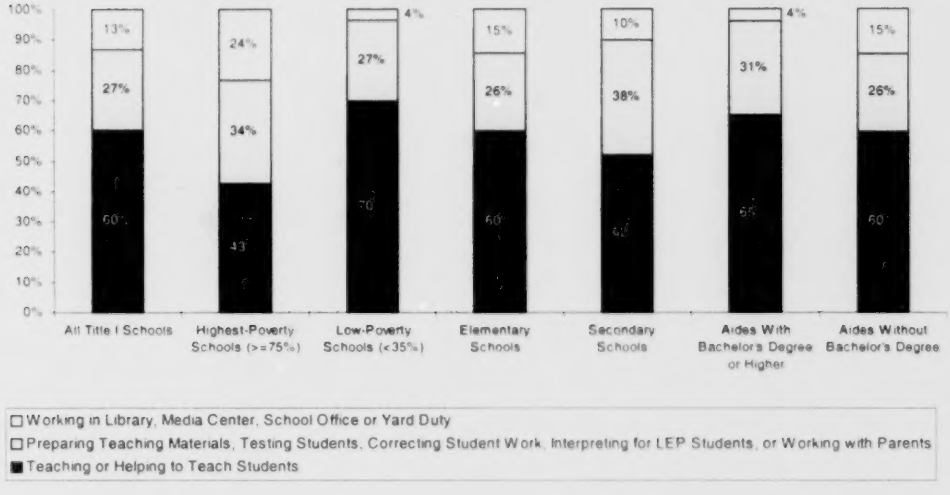

Exhibit reads: **Title I teacher aides spent more of their time teaching or helping to teach students in low-poverty schools (70 percent) than they did in the highest-poverty schools (43 percent), where they spent an above-average share of their time working in the library, media center, or school office or on yard or cafeteria duty (24 percent).**

Source: Title I Teacher Aide Questionnaire

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Title I teacher aides reported that a substantial amount of the time they spent teaching or helping to teach students was on their own, without a teacher present. Across all Title I schools, 41 percent of Title I teacher aides reported that half or more of the time they spent teaching or helping to teach was on their own, without a teacher present (Exhibit V-21). The number of aides that spent half or more of their time teaching on their own was much greater for those with a bachelor's degree or higher (57 percent) than for those without a bachelor's degree (34 percent). Title I aides in high-poverty schools were more likely than those in low-poverty schools to report that half or more of their time teaching students was without a teacher present (46 percent of Title I teacher aides in the highest-poverty schools, compared with 28 percent in low-poverty schools). More elementary-school Title I aides spent half or more of their time teaching students without a teacher present than did their secondary-school counterparts (43 percent versus 17 percent).

Exhibit V-21
Amount of the Time That Title I Aides Spent Teaching Students That Was on Their Own, Without a Teacher Present

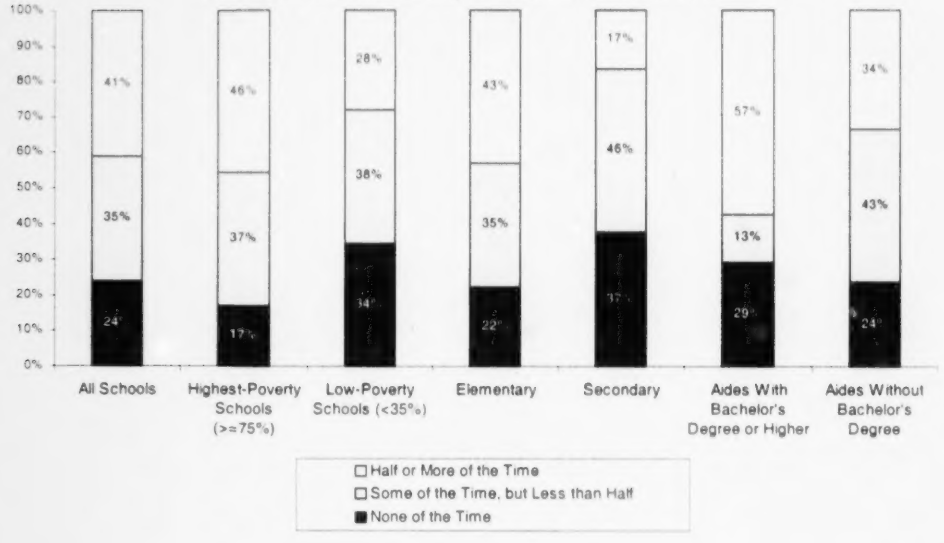

Exhibit reads: **Forty-one percent of Title I aides reported that half or more of the time they spent teaching or helping to teach was on their own, without a teacher present.**

Source: Title I Teacher Aide Questionnaire

Although paraprofessionals are spending a majority of their time teaching, they receive limited in-service training to improve their skills. Although over three-quarters (78 percent) reported receiving such training in the 1997-98 school year, most received less than 2 days of training.

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Use of Title I resources for parent involvement

Overall, about 2 percent of Title I funds were used for parent involvement, amounting to $157 million in the 1997-98 school year (Exhibit V-2). Of these funds, $46 million was used to hire paraprofessionals to serve as parent liaisons (Exhibit V-17), and the remaining $114 million was used for districtwide parent involvement programs.

Title I schools reported using a variety of strategies for involving parents in their children's education (Exhibit V-22). Common strategies were parent advisory councils (81 percent of Title I schools), home-based education activities designed to reinforce classroom instruction (70 percent), parent resource centers (67 percent), parent coordinators (67 percent), and family literacy programs (44 percent). Home-based education activities were more prevalent in targeted assistance schools (80 percent, vs. 58 percent of schoolwide programs). Family literacy programs were more prevalent in schoolwide programs (57 percent vs. 36 percent in targeted assistance programs). Parent liaison staff and parent resource centers were both more prevalent in schoolwide programs.

Exhibit V-22
Services and Resources For Parents in Title I Schools: Title I, Schoolwide, and Targeted Assistance Schools Offering Specific Services and Resources For Parents

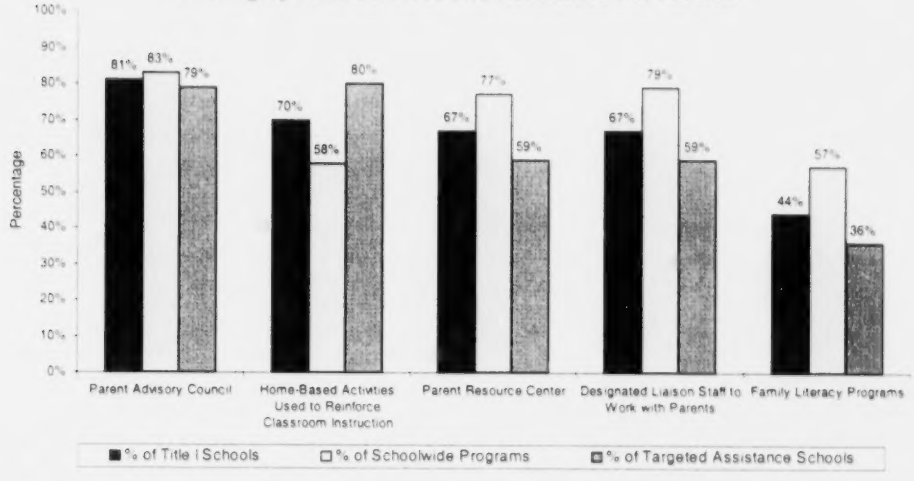

Exhibit reads: **Parent advisory councils were offered in 81 percent of all Title I schools, including 83 percent of schoolwide programs and 79 percent of targeted assistance schools.**

Source: School Questionnaire

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Summary

Most Title I funds are used for instruction, supporting the hiring of additional teachers and teacher aides, providing instructional materials and computers, and supporting other instructional services and resources. Overall, three-fourths (77 percent) of Title I funds were spent on instruction, with an additional 12 percent used for instructional support and 12 percent used for program administration. Title I spending on instruction amounted to an estimated $5.5 billion for the 1997-98 school year, including $3.3 billion spent on teachers (47 percent of total Title I expenditures) and $1.0 billion on teacher aides (15 percent). The share of Title I funds used for instruction (77 percent) was greater than the share of total school district expenditures used for instruction (62 percent).

Overall, Title I provided an additional $472 per low-income student in Title I schools. Title I allocations per low-income student were substantially higher in low-poverty schools ($771) than in higher-poverty schools ($475).

Title I funds resulted in a 6 percent increase in total personnel expenditures in Title I schools, or $236 per student (i.e., total enrollment). If the Title I funds are calculated in terms of just the number of low-income students, then the amount added by Title I equaled $434 per low-income student—a 12 percent increase over the non-Title I base. In terms of funding per Title I participant, the amount Title I added to school staffing averaged $412 per Title I participant—a 15 percent increase over the base.

The amount that Title I added to total personnel expenditures was higher in the highest-poverty elementary schools ($355 per student, or a 10 percent increase) than in low-poverty schools ($247 per student, or a 6 percent increase). In terms of low-income students, however, the story was reversed: Title I resources caused a much greater increase in funding per low-income student in the low-poverty elementary schools (26 percent) than in the highest-poverty elementary schools (12 percent). Title I personnel expenditures per low-income student amounted to only $415 in the highest-poverty elementary schools, compared with $1,035 in the low-poverty schools.

The total number of full-time staff added to a typical-sized Title I elementary school with 500 students amounted to 4.4 additional full-time equivalent (FTE) staff, including 2.1 FTE additional teachers, 1.9 FTE additional teacher aides, and 0.5 FTE additional noninstructional staff. In secondary Title I schools, using the same standardized enrollment level of 500 students, Title I added a smaller number of FTE staff (1.9), consisting of 0.6 FTE teachers, 0.7 FTE teacher aides, and 0.6 FTE noninstructional staff. In other words, for a typical secondary school of about 1,000 students, Title I would add about

3.8 FTE staff, including 1.2 FTE teachers, 1.4 FTE teacher aides, and 1.2 FTE noninstructional staff.[14]

Although teacher aides accounted for half of Title I-funded instructional staff, they accounted for only 15 percent of total Title I expenditures and 24 percent of spending on instructional staff. The average annual salary for an FTE teacher aide ($12,627) was about 31 percent of the average salary for a Title I teacher.

Title I teachers reported that 66 percent of their time was spent in instructional settings. This instructional time was primarily spent in resource rooms (e.g., pullout programs) or separate departmentalized classes (49 percent of their time), with an additional 14 percent spent teaching students in in-class settings and 3 percent on informal tutoring. The remainder of time was spent on planning, preparation, and grading (19 percent), consultations with other staff (6 percent), interactions with parents (3 percent), and administrative duties (6 percent).

Paraprofessionals were widely used for teaching and helping to teach students, although their educational backgrounds do not prepare many of them for such responsibilities. Title I teacher aides reported that 60 percent of their time was spent on teaching or helping to teach students. Moreover, 41 percent of Title I aides reported that half or more of the time they spent teaching or helping to teach students was on their own, without a teacher present, and 76 percent spent at least some of their time teaching without a teacher present. Although 99 percent of these aides had a high school diploma or a GED, only 25 percent (and 10 percent in the highest-poverty schools) had a bachelor's degree.

[14] The weighted average enrollment of the secondary schools in the sample used in this study was 1,085 students.

Chapter VI

Preschool and Extended Learning Time Programs

Schools have established a variety of programs that provide additional instructional time for students. These include preschool programs to help prepare students for their subsequent schooling experiences; programs that extend instructional time during the regular school year before school, after school, and on the weekends; and summer school programs that provide additional instruction in the months beyond the normal school year. Each of these programs provides a way to increase the amount of instructional time available to students to take advantage of structured learning opportunities.

It should be noted that this study's estimates of the percentages of schools offering various types of extended time programs are somewhat higher than similar estimates from the Follow-Up Public School Survey, also sponsored by the U.S. Department of Education.[1] It is believed that these differences are due to different wording in the school questionnaires administered by the two studies. Specifically, the Follow-Up Survey asked simply about "extended time instructional programs", while the Study of Education Resources asked whether schools offered "tutorial or instructional programs" outside of the regular school day and year. The specific inclusion of tutorial programs in the questionnaire wording apparently caused a greater number of schools to respond positively when asked if they offered extended time programs.

[1] Heid and Webber, *School-Level Implementation of Standards-Based Reform: Findings from the Follow-Up Public School Survey on Education Reform* (Washington, DC: U.S. Department of Education, 1999). The Follow-Up Survey asked only Title I schools about whether they offered extended time programs, and it found that only 44 percent of Title I schools offered after-school programs and 37 percent offered summer programs, compared with SERF findings of 59 percent and 61 percent, respectively. The estimated prevalence of before-school programs was similar across both studies (16 percent from the Follow-Up Survey and 19 percent from the SERF). Both surveys were conducted during the 1997-98 school year.

Preschool programs

Prevalence of preschool programs

Almost one-third (32 percent) of all elementary schools offered preschool programs to their students (Exhibit VI-1). However, the availability of such programs varied greatly according to the type of Title I program. Over half (53 percent) of the elementary schools operating Title I schoolwide programs offered preschool programs, compared with 19 percent of elementary targeted assistance schools and 22 percent of non-Title I schools.

Exhibit VI-1
Percentage of Elementary Schools with Preschool Programs

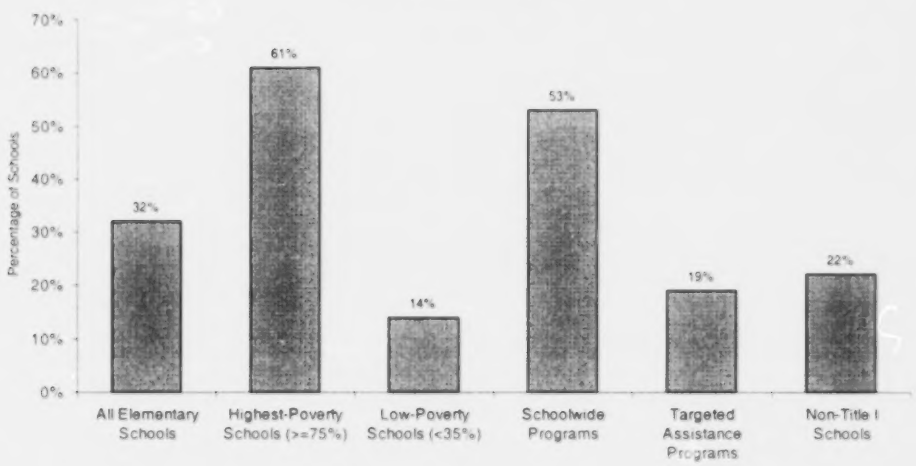

Exhibit reads: **Fifty-three percent of elementary schools with schoolwide Title I programs offered preschool programs.**

Source: School Questionnaire

The highest-poverty schools were more than four times as likely to operate preschool programs as low-poverty schools: 61 percent of schools serving 75 percent or more students living in poverty, versus 14 percent of schools serving less than 35 percent of students living in poverty.

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Proportion of students served by preschool programs

Overall, schools served about 9 percent of the estimated preschool-age population in preschool programs. Looking only at schools offering preschool programs, these schools enrolled 28 percent of the estimated number of preschool-age children living in their school attendance areas.

The highest-poverty schools served a much greater percentage of their preschool population in preschool programs (24 percent) than did low-poverty schools (3 percent). This is partly because the highest-poverty schools were more likely to offer preschool programs, and partly because those that did offer preschool programs tended to serve a larger proportion of their preschool-age children (34 percent) compared with low-poverty schools (20 percent). Similarly, schoolwide programs served a higher proportion of their preschool-age children (17 percent) than targeted assistance programs (4 percent) or non-Title I schools (7 percent).

Exhibit VI-2
Preschool Enrollment as a Percentage of the Estimated Preschool-Age Population

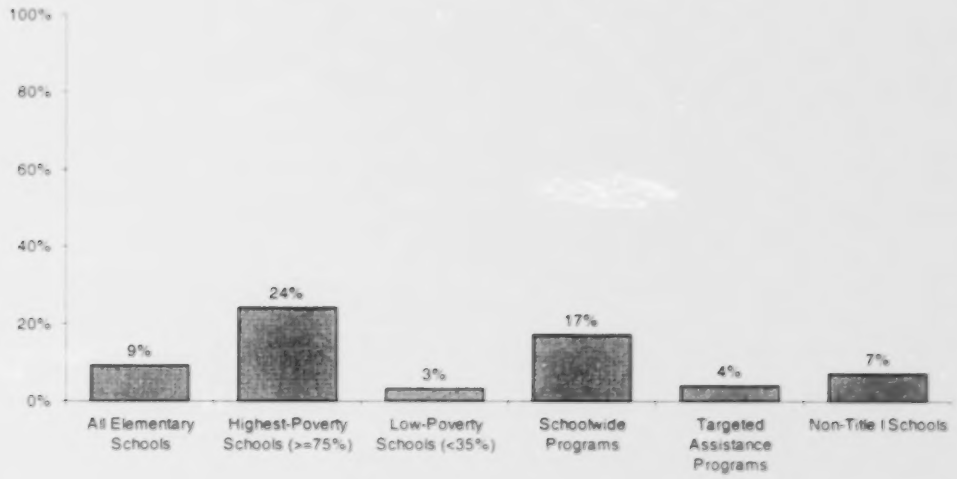

Exhibit reads: **The percentage of preschool-age children served in preschool programs was higher in the highest-poverty schools (24 percent) than the average for all schools (9 percent).**

Source: School Questionnaire

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Extended time instructional programs during the school year

Prevalence of extended time programs

Overall, about two-thirds (63 percent) of all schools offered extended-time instructional or tutorial programs during the school year (including before-school, after-school, and weekend programs). Extended time programs were much more prevalent in secondary schools (79 percent) but were also present in over half (54 percent) of elementary schools (Exhibit VI-3).

Exhibit VI-3
Percentage of Schools Offering Extended Time Instructional Programs During the School Year

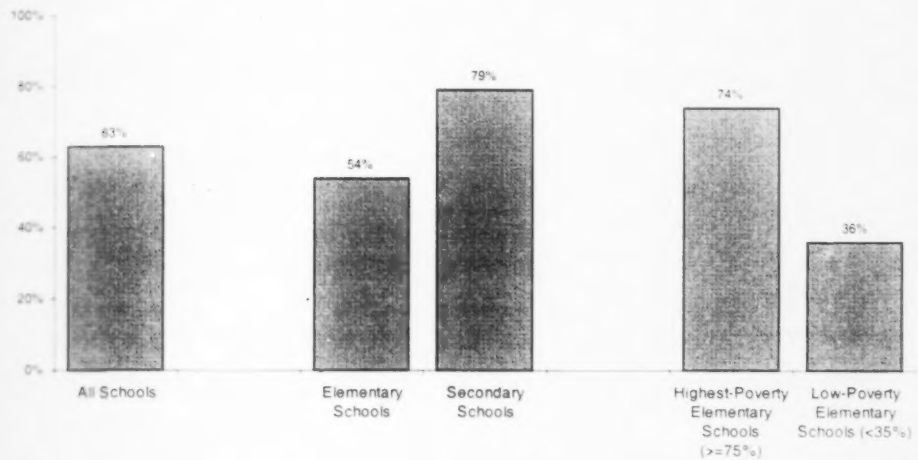

Exhibit reads: **Sixty-three percent of all schools offered extended time programs during the school year.**

Source: School Questionnaire

Extended time programs were much more prevalent in higher-poverty schools, with 75 percent of the highest-poverty schools offering such programs, compared with only 56 percent of low-poverty schools. The pattern was particularly pronounced among elementary schools, where the highest-poverty schools were twice as likely to offer extended time programs as the lowest-poverty schools (74 percent vs. 36 percent).

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Title I schools were more likely than non-Title I schools to have extended time programs. At the elementary level, 61 percent of Title I schools and 38 percent of non-Title I schools offered extended time programs. Among Title I schools, those with schoolwide programs were more likely to offer extended time programs (77 percent) than were targeted assistance schools (55 percent), which is consistent with the above finding that extended time programs were more prevalent in higher-poverty schools.

After-school programs were the most common type of extended time instructional program during the school year. Fifty-seven percent of all schools had after-school instructional programs, while 22 percent had before-school programs and 6 percent had weekend programs (Exhibit VI-4). The highest-poverty schools were more likely than low-poverty schools to offer after-school programs (73 percent versus 48 percent) and weekend programs (9 percent versus 5 percent) but less likely to offer before-school programs (14 percent vs. 25 percent). However, when school grade level is held constant, before-school programs are slightly more prevalent in higher-poverty schools (14 percent of the highest-poverty elementary schools, compared with 12 percent of low-poverty elementary schools).

Exhibit VI-4
Percentage of Schools Offering Before-School, After-School, and Weekend Instructional Programs

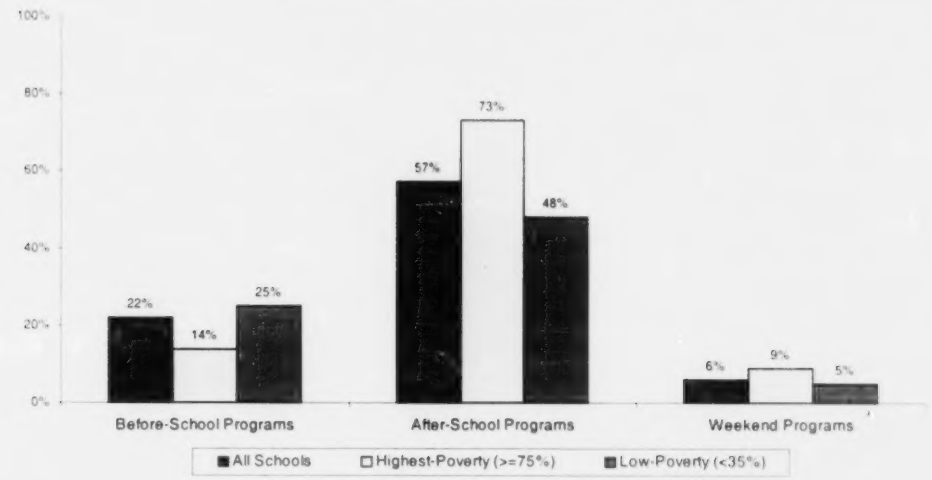

Exhibit reads: **Fifty-seven percent of schools offered after-school programs.**

Source: School Questionnaire

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Proportion of students served by extended time programs

Schools that offered extended time programs typically served a small percentage of their students in these programs (11 percent) (Exhibit VI-5). The percentage of all students served in extended time programs was even smaller (7 percent). The highest-poverty schools served almost three times as many of their students in extended time programs (14 percent) compared with low-poverty schools (5 percent)—partly because the highest-poverty schools were more likely to offer extended time programs, and partly because extended time programs in the highest-poverty schools served a higher proportion of students in these schools than in low-poverty schools that offered extended time programs (16 percent and 8 percent, respectively).

Exhibit VI-5
Percentage of Students Served by Extended Time Instructional Programs During the School Year

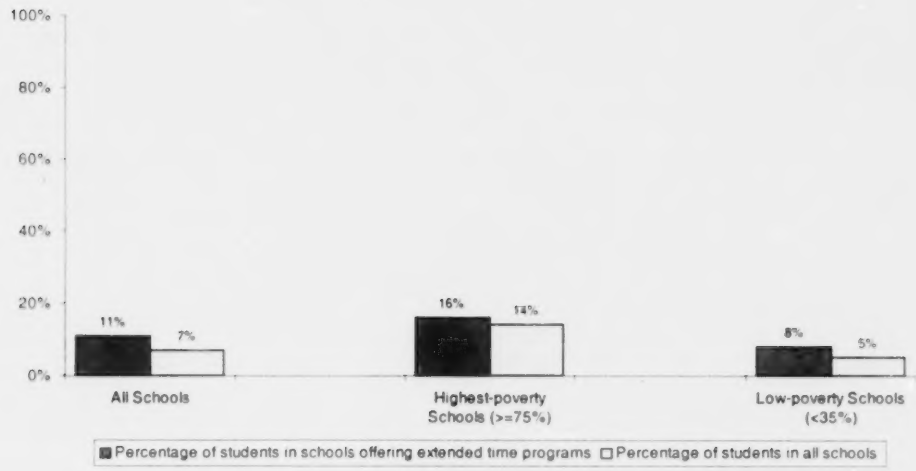

Exhibit reads: **Extended time programs served 11 percent of the students in schools that offered such programs and 7 percent of students in all schools.**

Source: School Questionnaire

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There was little difference in the proportion of students served in elementary and secondary schools and in Title I and non-Title I schools. Title I schoolwide programs with extended time programs served a greater proportion of their students in these programs (15 percent) compared with targeted assistance schools (9 percent)—again consistent with the findings on high- and low-poverty schools.

After-school instructional programs served a much higher percentage of all students (5 percent) than did before-school programs (1 percent) and weekend programs (1 percent) (Exhibit VI-6). This was largely due to the fact that schools were more likely to offer after-school programs. In schools that offered each type of extended time program, similar proportions of students were served in before-school programs (7 percent), after-school programs (9 percent), and weekend programs (9 percent).

Exhibit VI-6
Percentage of Students Served by Before-School, After-School, and Weekend Instructional Programs

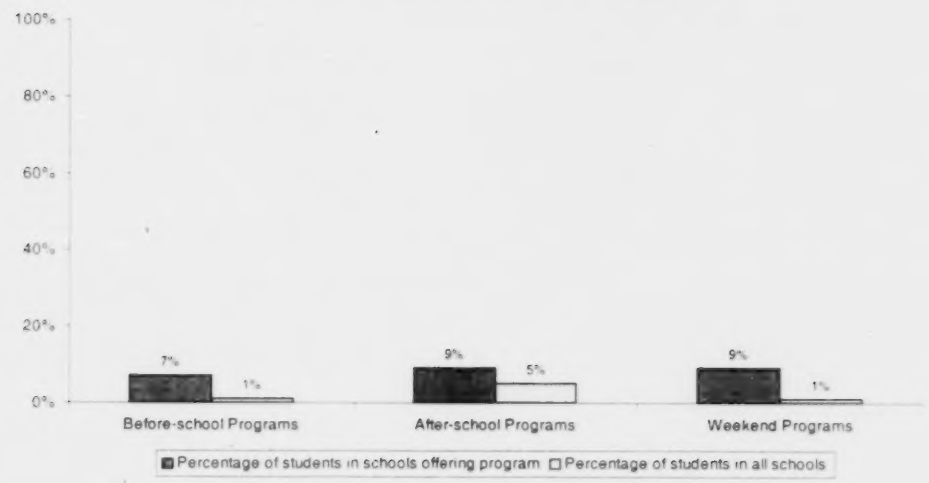

Exhibit reads: **After-school instructional programs served 9 percent of the students in schools that offered such programs and 5 percent of students in all schools.**

Source: School Questionnaire

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Hours of instruction added through extended time programs

On average, extended time instructional and tutorial programs during the school year added 116 hours of additional instructional time to the school year for participating students—a 10 percent increase in the amount of time these students spent in school (Exhibit VI-7).[2] Extended time programs added more instructional hours in secondary schools (135 hours) than in elementary schools (101 hours), and also added more hours in the highest-poverty schools (134 hours) than in low-poverty schools (108 hours).

Exhibit VI-7
Instructional Time Added by Extended Time Programs During the School Year

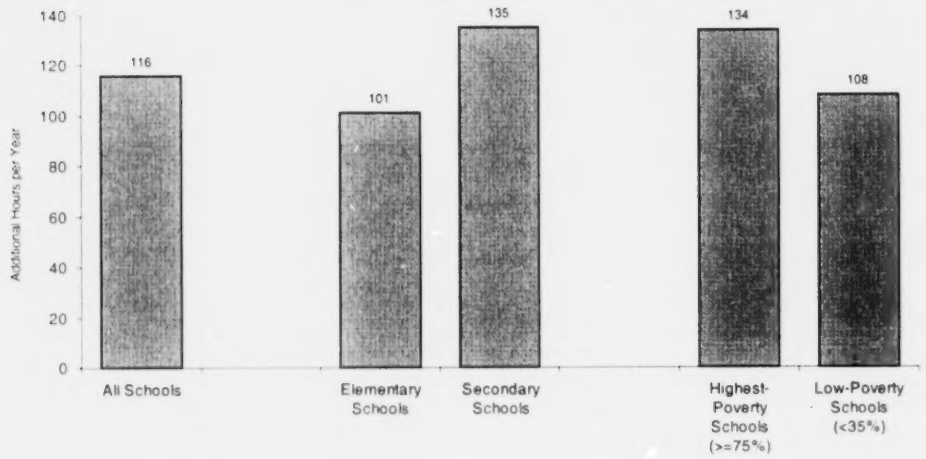

Exhibit reads: **Extended time programs in elementary schools added 101 instructional hours to the school year for participating students.**

Source: School Questionnaire

[2] This percentage is based on the average number of hours of instruction per school year ranging from about 1,073 to 1,300 depending upon type of Title I program. Choosing a middle point as an average (i.e., 1,187), the average of 10 percent is calculated by dividing 116 by 1,187.

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The additional time provided did vary substantially across the different types of extended-time programs. After-school programs provided the most additional time (111 hours), while before-school programs provided an additional 77 hours and weekend programs provided an additional 53 hours (Exhibit VI-8). After-school programs also provided significantly more additional time in high-poverty schools, adding 143 hours in the highest-poverty compared with 94 hours in the lowest-poverty schools.

Exhibit VI-8
Instructional Time Added by Before-School, After-School, or Weekend Instructional Programs

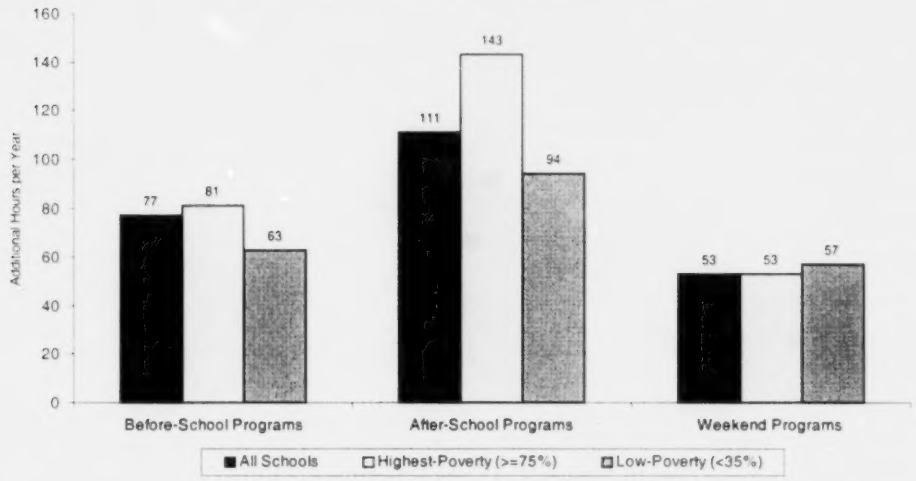

Exhibit reads: **After-school programs added 143 hours of instructional time per year in the highest-poverty schools.**

Source: School Questionnaire

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Summer school programs

Prevalence of summer programs

Overall, more than half (56 percent) of all schools offered summer school programs (Exhibit VI-9). These summer programs were somewhat more prevalent in secondary (66 percent) than in elementary schools (51 percent).

At the elementary level, summer school programs were much more common in the highest-poverty schools (65 percent) than in low-poverty schools (40 percent). Summer programs were more than twice as likely to be offered in Title I elementary schools (59 percent) than in non-Title I elementary schools (26 percent). At the secondary level, the prevalence of summer programs did not vary much by school grade level or Title I status.

Exhibit VI-9
Percentage of Schools Offering Summer School Programs By Grade Level and Type of Title I Program

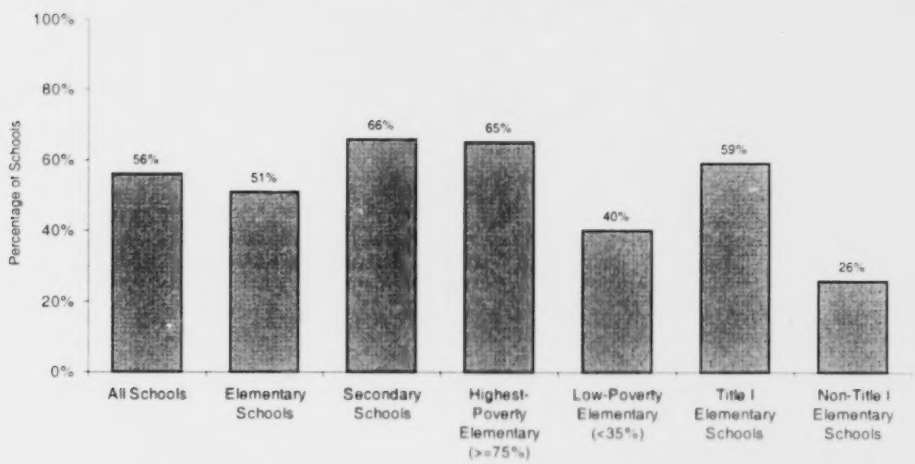

Exhibit reads: **At the elementary level, summer school programs were more prevalent in the highest-poverty schools (65 percent) than in low-poverty schools (40 percent).**

Source: School Questionnaire

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Proportion of students served in summer programs

Overall, schools served about 14 percent of their students in summer school programs. Looking only at schools offering summer programs, these schools enrolled 20 percent of their students in summer programs. Secondary schools served a greater proportion of their students in summer programs (18 percent) than elementary schools (9 percent). This is mainly because secondary schools were more likely to offer summer programs; looking only at those schools offering summer programs, the proportion of students served was about the same in elementary schools and secondary schools (19 percent and 22 percent, respectively). Differences between high- and low-poverty schools were relatively small, as were differences between Title I and non-Title I schools.

Exhibit VI-10
Percentage of Students Served in Summer School Programs

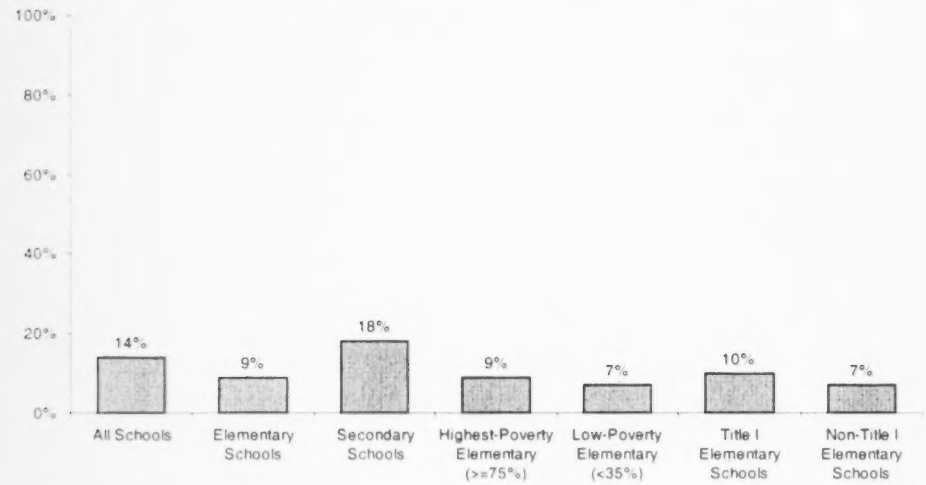

Exhibit reads: **Summer school programs served a greater proportion of students in secondary schools (18 percent) than in elementary schools (9 percent).**

Source: School Questionnaire

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How many additional hours of instruction per year are provided in summer programs?

The average summer program added about 82 hours of instruction to the school year (Exhibit VI-11). Secondary school summer programs averaged about 96 hours of instruction, while elementary summer programs averaged 73 hours. Summer programs in Title I elementary schools averaged 70 additional hours, compared with 91 hours in non-Title I schools.

Exhibit VI-11
Average Hours per Year of Summer School Instruction in Schools Offering Summer Programs by Grade Level and by Type of Title I Program

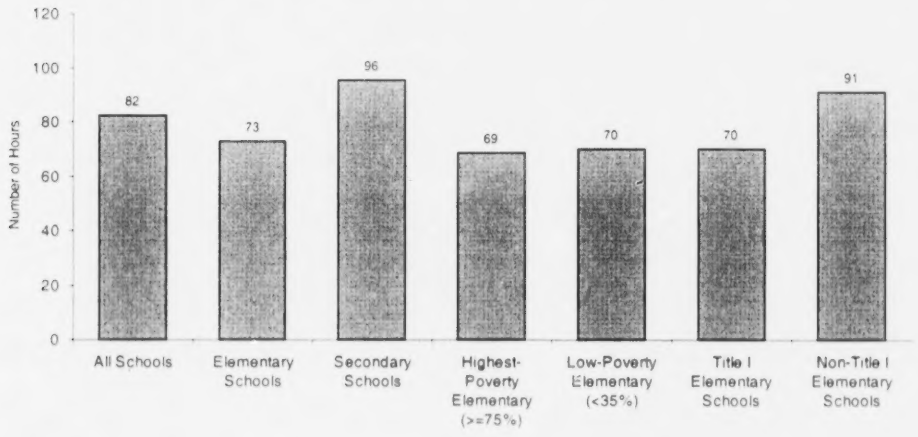

Exhibit reads: **Non-Title I elementary schools offered an average of 91 hours of summer school instruction, compared to only 70 hours for Title I elementary schools.**

Source: School Questionnaire

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Summary

Preschool programs were offered in one-third (32 percent) of all elementary schools and enrolled 28 percent of the estimated preschool-age population in the school attendance areas for schools offering these programs. Preschool programs were much more prevalent in the highest-poverty schools (61 percent) than in low-poverty schools (14 percent) and also served a higher proportion of the preschool-age population in the highest-poverty schools (24 percent) compared with 3 percent in the low-poverty schools.

Two-thirds of schools (63 percent) offered extended time instructional or tutorial programs during the school year through before-school, after-school, or weekend programs. After-school programs were more widely used than before-school or weekend programs—both at the elementary and secondary level. Secondary schools were more likely to offer extended time programs (79 percent) than were elementary schools (54 percent).

High-poverty schools were more likely to offer extended time programs than low-poverty schools, and this difference was particularly pronounced at the elementary school level. Three-fourths (74 percent) of the highest-poverty elementary schools offered extended time programs, compared with only 36 percent of lowest-poverty elementary schools.

Extended time programs served a relatively small percentage of students: 11 percent of the students in schools offering extended time programs and 7 percent of students in all schools. However, the percentage of students served was higher in the highest-poverty schools (14 percent of all students in the highest-poverty schools). Extended time programs added an average of 116 additional instructional hours during the school year for participating students—about a 10 percent increase in instructional time.

Summer school programs were offered in 56 percent of all schools and were more common at the secondary level (66%). At the elementary level, summer programs were more prevalent in the highest-poverty schools and in Title I schools. Overall, summer school programs served 14 percent of all students, and served a higher proportion of students in secondary schools (18 percent) than in elementary schools (9 percent).

Chapter VII

Improving the Skills and Knowledge of Teachers

Effective implementation of content and performance standards at the classroom level depends on teachers' understanding of ways to incorporate those standards into their classroom instruction and practices. Teachers' effectiveness in enabling all students to achieve to high standards also depends on their ability to continually learn and adapt their practices to changing student needs, advancements in technology, and information on research-based methods for increasing student learning. Therefore, professional development for teachers has become a high priority for schools, districts, and funding agencies. This chapter describes how districts use Title II and other funds for a variety of professional development activities intended to improve the skills and knowledge of teachers.

This study examines both the overall use of professional development in districts and schools as well as the specific uses of Title II Eisenhower Elementary-Secondary Grants. It does not cover Eisenhower Higher Education Grants, which go to institutions of higher education working in partnership with school districts and schools. Title II Elementary-Secondary Grants account for 84 percent of total Title II funds ($260 million in FY 1997).

Revenues and expenditures for professional development

Six federal programs provided $785 million in support for professional development for the 1997-98 school year. The Title II Eisenhower Program provided a total of $294 million (37 percent) through elementary/secondary grants to school districts ($244 million) and grants to institutions of higher education ($50 million). Title I expenditures on professional development at the district and school levels amounted to $212 million (about 3.1 percent of total Title I expenditures). Goals 2000, although a much smaller program than Title I, provided nearly as much support for professional development ($189 million). In addition, Title VI and Title IV contributed $45 million each to professional development activities (Exhibit VII-1).

Exhibit VII-1
Financial Contribution of Six Federal Programs to Funding for Professional Development

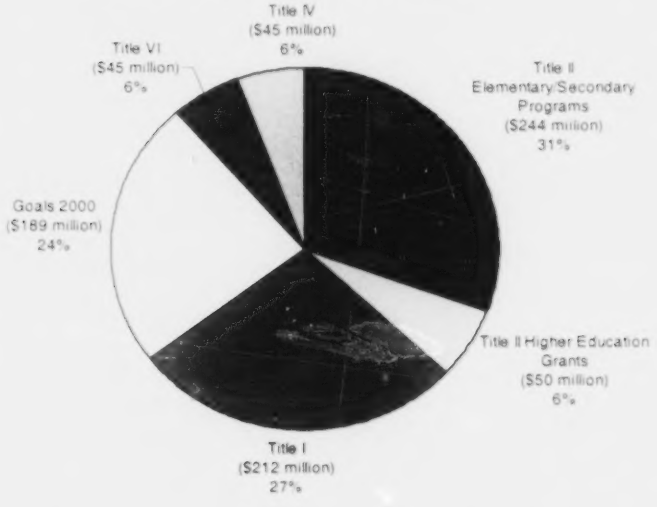

Exhibit reads: **District and school spending on professional development from Title I amounted to $212 million—27 percent of total funding for professional development from the programs in this study.**

Source: District Federal Programs Budget Data

Note: Title II Higher Education Grants are included in this exhibit in order to provide a more complete picture of federal funds available for professional development, although this program is not otherwise included in this study. The percentages add to more than 100 percent due to rounding. Technology Innovation Challenge Grants are included in this exhibit in order to provide a more complete picture of federal funds available for technology, although this program is not otherwise included in this study.

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While Title II is the main source of specific federal funds for professional development, funding from other programs was frequently used to support professional development as well. Not only was the financial contribution of Goals 2000 and Title I to professional development large, it was widespread. Almost all district Goals 2000 coordinators (94 percent) and Title I coordinators (86 percent) reported using funds for this purpose (Exhibit VII-2). While the contribution of the other programs to professional development was smaller, almost three-quarters (71 percent) of district Title IV coordinators and a quarter (24 percent) of Title VI coordinators reported using some funds for this purpose. Districts using Title VI funds for professional development accounted for a much higher proportion of students (57 percent), indicating that large districts were more likely to use Title VI funds for this purpose.

Exhibit VII-2
Percentage of Districts Using Various Federal Program Funds for Profesional Development

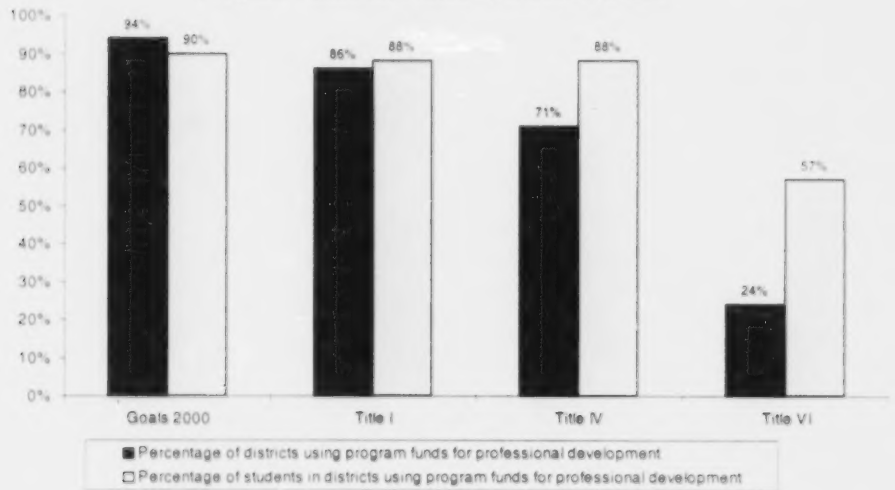

Exhibit reads: **Ninety-four percent of Goals 2000 districts used Goals 2000 funds for professional development.**

Source: District Questionnaire

While it is clear that federal programs provide a significant amount of support for professional development in districts and schools, there is little information available on the share of total spending on professional development that is provided through federal programs. Most districts do not track the total amount

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of funds that they are spending on professional development, nor do they have an overall professional development plan showing how they are using funds from a variety of sources to meet the professional development needs of the district as a whole or of individual schools within the district. In part this may reflect a diffused control over different types of resources that may be used for professional development by various program coordinators or by individual schools. In response to this study's request that districts provide copies of any plans or budgets covering all of the districts' professional development activities, only 19 of the 141 districts participating in the study were able to provide budget or expenditure information.

In the 19 districts that provided information on total professional development expenditures, federal programs provided 28 percent of total resources used for professional development (Exhibit VII-3). Nearly all of these federal resources came from the five programs that are included in this study: Title II, Title I, Goals 2000, Title VI, and Title IV. State categorical programs also provided a substantial share of total funds for professional development in these districts. About half of all professional development funds in these districts came from the district general fund (47 percent), and small amounts of resources were provided through other state and local funds (4 percent) and private foundations (less than 1 percent).

Exhibit VII-3
Sources of Funds for Professional Development in 19 Districts, 1997-98

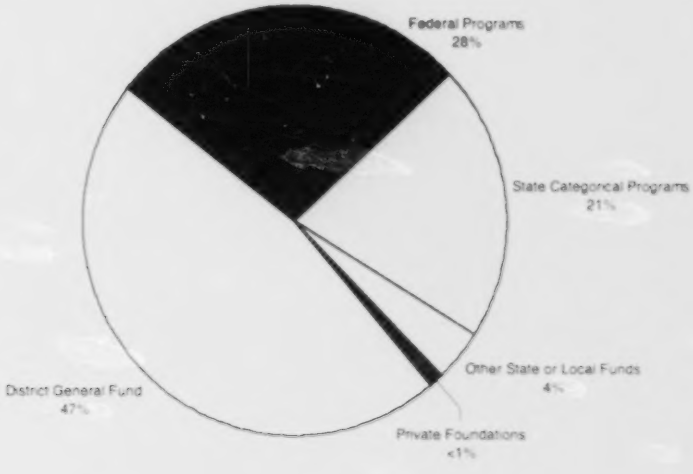

Exhibit reads: **Federal programs provided 28 percent of the funds for professional development in 19 districts.**

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It should be noted that total spending on professional development is not the same as total investment in professional development. The value of the time that teachers and other staff spend in professional development activities constitutes a significant amount of the total investment in professional development, but this is not usually counted or quantified as a cost of professional development activities. This is particularly relevant for many non-traditional types of professional development that may not have budgetary costs, such developing standards and assessments, developing curriculum, planning lessons or courses with other teachers, participating in teacher study groups, observing other teachers in their classrooms, and participating in coaching or mentoring relationships with other teachers.

Sources of matching funds for Title II programs

Districts receiving Title II Eisenhower funds are required to co-fund the program with other revenues and do so using a variety of sources. **There was no specific funding source with which over half the districts reported co-funding Title II**[1] (Exhibit VII-4). Rather, the category called "other," which would include the district general fund, was used by three-quarters (73 percent) of the districts. Private sources were used by 40 percent of the districts. The most commonly used federal programs were Goals 2000 (29 percent) and Title I (26 percent).

Exhibit VII-4
Sources of Matching Funds for Title II Programs

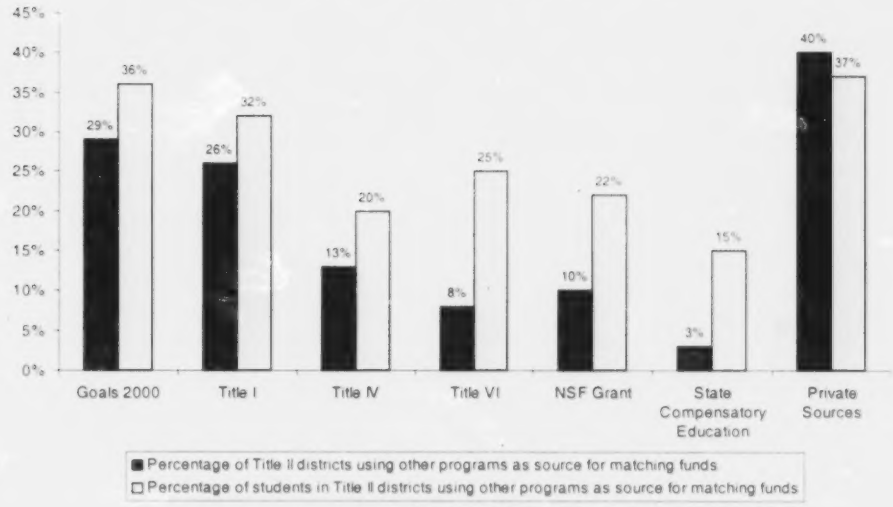

Exhibit reads: **Twenty-nine percent of Title II districts used Goals 2000 funds as matching funds for Title II. Thirty-six percent of students were enrolled in Title II districts using Goals 2000 funds as matching funds.**

Source: District Questionnaire

[1] Not all Title II districts receive funds from each of the sources, and thus, could not co-fund with the source.

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Use of Title II funds

Consistent with the original intent of Title II, districts used the vast majority of their Title II funds (82 percent) for professional development in math and science for teachers and other instructional staff (Exhibit VII-5). Eight percent of funds were used for other subject areas, and 10 percent of funds were used for professional development activities that were not subject-specific. Less than 1 percent of Title II funds were used for professional development for noninstructional staff.

Exhibit VII-5
Percentage of Title II Funds Used for Various Types of Professional Development, 1997-98

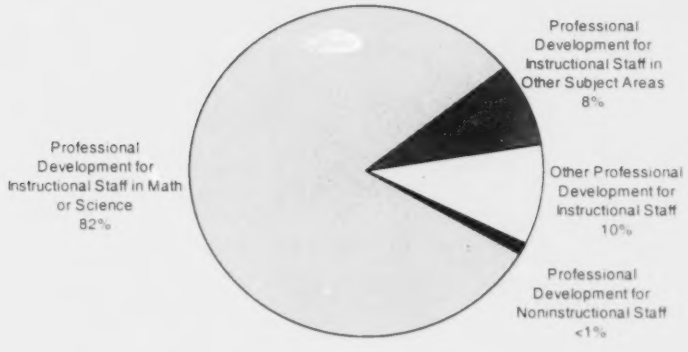
Professional Development for Instructional Staff in Other Subject Areas 8%
Other Professional Development for Instructional Staff 10%
Professional Development for Noninstructional Staff <1%
Professional Development for Instructional Staff in Math or Science 82%

Exhibit reads: **Districts used 82 percent of their Title II funds for professional development in math and science for teachers and other instructional staff.**

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Use of professional development funds

Topics of professional development activities attended by teachers

More teachers participated in professional development focused on specific content areas such as mathematics or reading than on any other topic (Exhibit VII-6). This finding is promising given that a recent NCES report found that teachers reported that professional development activities that focused on specific content areas improved their teaching more than activities focused on other topics.[2] Other topics reported by a majority of classroom teachers were integrating technology into classroom instruction (61 percent), developing teachers' skills in using technology (61 percent), district or state content or performance standards (49 percent), and methods for assessing student performance (48 percent).

Exhibit VII-6
Percentage of Teachers Participating in Professional Activities Focused on Various Topics

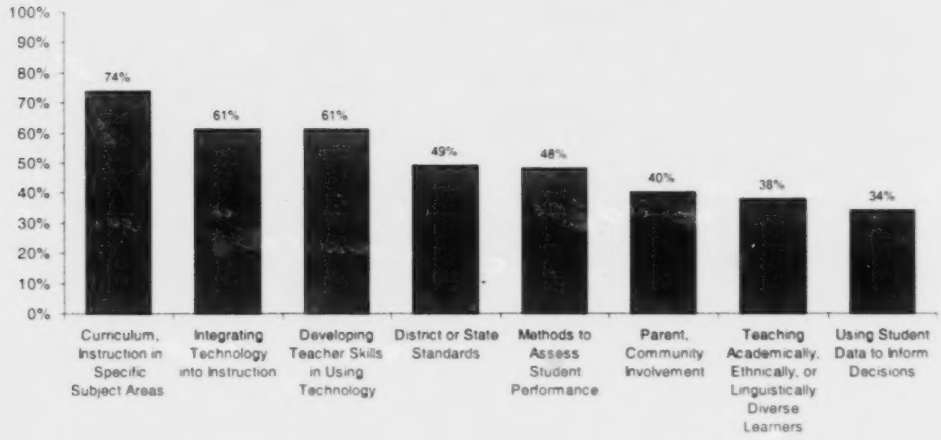

Exhibit reads: **Seventy-four percent of teachers participated in professional development activities focused on *curriculum and instruction in specific subject areas.***

Source: Teacher Questionnaire

[2] National Center for Education Statistics (1999). *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers: 1999* (Washington, DC: National Center for Education Statistics).

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Teachers spent more time participating in professional development activities focused on specific content areas such as mathematics or reading than any other topic (Exhibit VII-7). Classroom teachers in high-poverty schools received substantially more professional development focused on specific content areas (23 hours annually, compared with 13 hours for all classroom teachers). Compared with classroom teachers, Title I teachers participated in more professional development activities related to teaching academically, ethnically, or linguistically diverse learners, as well as activities to integrate technology into classroom instruction. Title I teachers in high-poverty schools reported about twice as much participation in these activities as Title I teachers in low-poverty schools.

Exhibit VII-7
Average Number of Hours per Year Teachers Participated in Professional Activities Focused on Various Topics

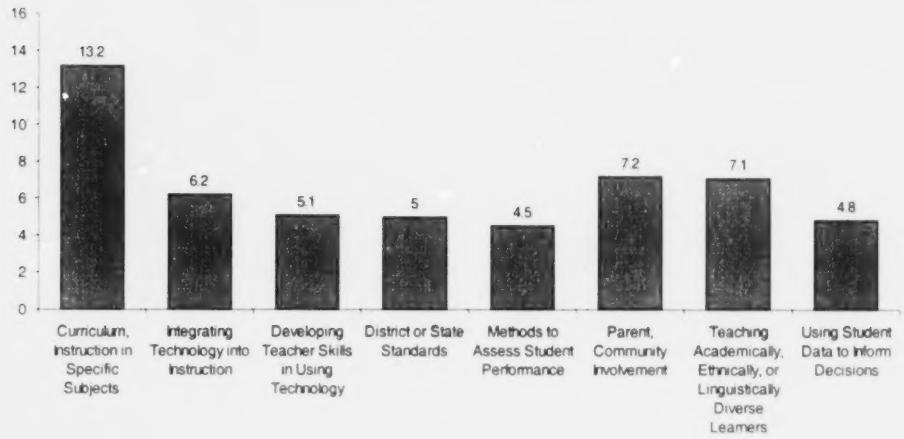

Exhibit reads: **Teachers participated in professional development activities focused on *curriculum and instruction in specific subject areas* for 13 hours per year.**

Source: Teacher Questionnaire

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Topics of professional development activities supported by schools and districts

District or state content or performance standards were a high priority for professional development activities at both the district and school levels, with 67 percent of districts and schools reporting that professional development activities focused "a great deal" on this topic. Professional development focused on enabling students to meet proficiency standards and on assessments that were linked to standards were also emphasized by a majority of districts and schools (Exhibit VII-8).

Exhibit VII-8
Percentage of Districts and Schools Reporting that Professional Development Activities Focused "A Great Deal" on Various Topics

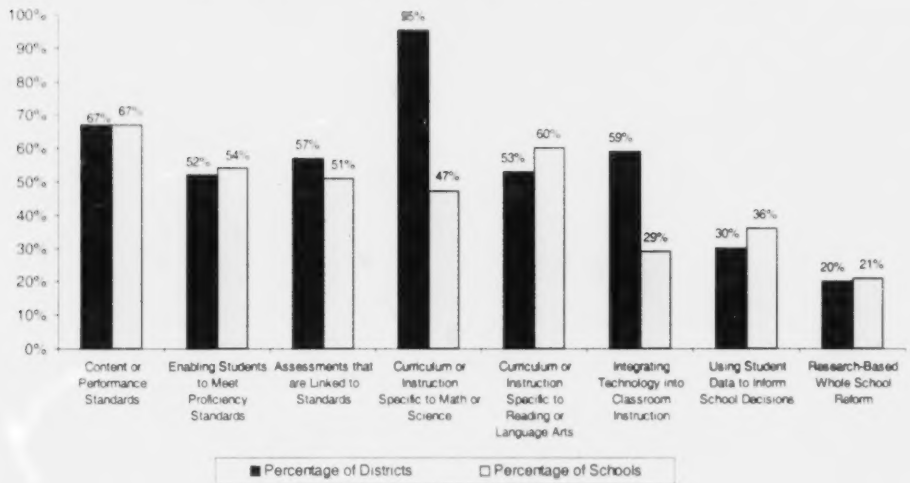

Exhibit reads: **Nearly all districts (95 percent) provided professional development activities focused a great deal on curriculum or instruction in math or science.**

Source: School and District Questionnaires

Interestingly, while districts and schools are spending a great deal of resources on trying to implement standards, a recent NCES report found that fewer teachers reported that professional development activities focused on this topic improved their teaching, compared with other topics.[3] This incongruity could provide an example of the difficulties involved in implementing state or national policies at the local level, even when resources are provided. However, it is unclear whether districts and schools included, in their responses

[3] National Center for Education Statistics (1999). *Teacher Quality*

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to this item, activities that were focused on subject area content that was based on state or district standards. Similarly, teachers' dissatisfaction might be with activities that only explain new standards in a conceptual way, as opposed to activities that are focused on how to teach subject area content that is based on those standards.

In general, schools and districts in the study supported similar professional development topics. However, the extent to which professional development activities focused on math or science differed greatly between districts and schools. Nearly all districts (95 percent), but only half of the schools (47 percent), reported using funds for this purpose. Because Eisenhower funds are a major source of professional development funding, and they are targeted to math and science, it is not surprising that districts supported these topics a great deal, and that schools may have had less need to do so given the district support. In addition, districts were twice as likely as schools to emphasize professional development on integrating technology into classroom instruction (59 percent of districts and 29 percent of schools).

Both Title I schools and non-Title I schools most often reported district or state content or performance standards as their highest priority (62 percent and 74 percent, respectively) (Exhibit VII-9). Reading or language arts was the second highest priority in both Title I schools (57 percent) and non-Title I schools (64 percent). Reading is often a high priority for Title I programs, so it is surprising that fewer Title I principals reported focusing professional development activities "a great deal" on this topic.

Exhibit VII-9
Focus of Professional Development Activities in Title I and Non-Title I Schools: Percentage of Schools Focusing Professional Development Activities "A Great Deal" on Various Topics

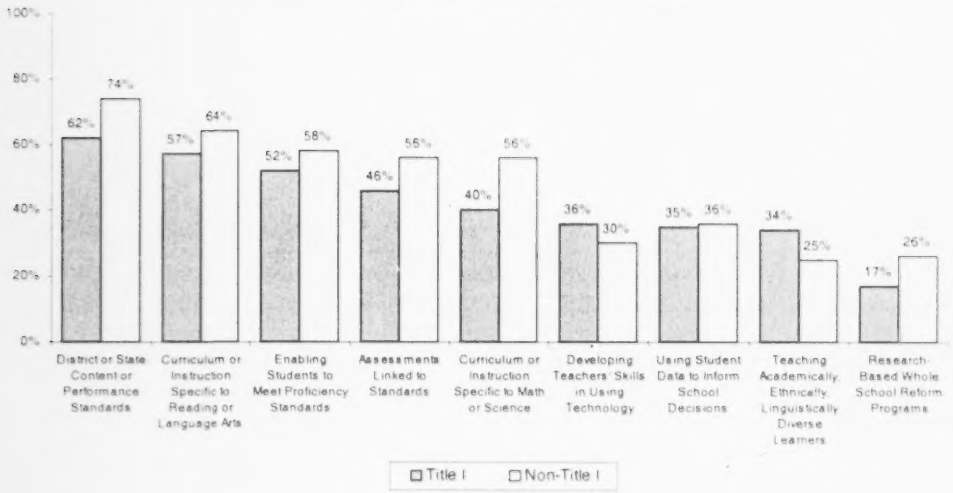

Exhibit reads: **Professional development activities focused *a great deal* on *district or state content or performance standards* in 62 percent of Title I schools and 74 percent of non-Title I schools.**

Source: School Questionnaire

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Topics of professional development supported by district federal programs

Appropriately, districts' uses of federal funds for professional development topics reflected differences in the federal program goals. Improving curriculum and instruction in math and science by supporting professional development in these areas was the original intent, and is still the primary focus, of the Title II program. Predictably, most Title II district coordinators (90 percent) used program funds for professional development activities focused a great deal on curriculum or instruction in math or science.

Professional development activities related to standards were the next highest priority reported by Title II coordinators, and these topics received more emphasis in large school districts. For example, 56 percent of Title II coordinators reported that professional development activities focused "a great deal" on content or performance standards, and these districts accounted for 76 percent of the students (Exhibit VII-10).

Exhibit VII-10
Districts' Uses of Title II Funds for Professional Development Focused on Various Topics

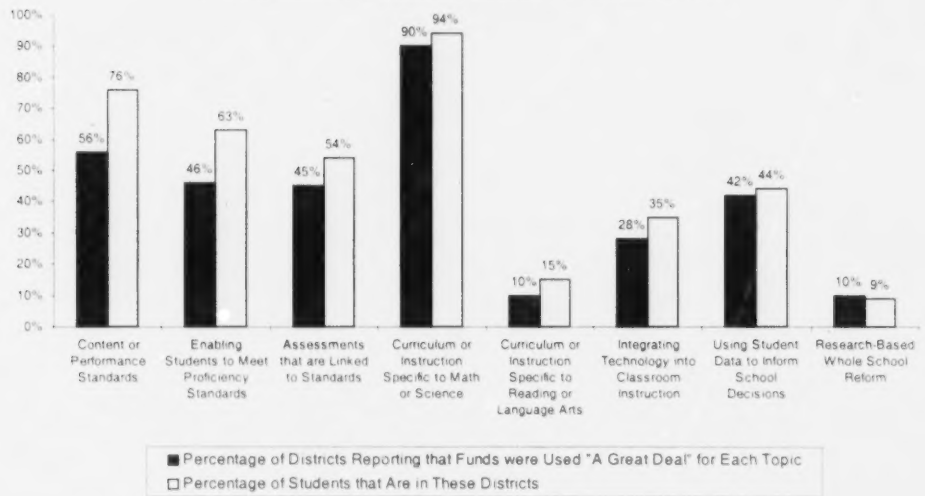

Exhibit reads: **Districts that reported using Title II funds for professional development activities that focused *a great deal* on *district or state content or performance standards* accounted for 56 percent of Title II districts and 76 percent of the students in Title II districts.**

Source: District Questionnaire

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For Goals 2000-supported professional development, the clear priority was topics related to implementation of standards. The three most common topics reported by district Goals coordinators were district or state content or performance standards (71 percent), enabling students to meet state or district proficiency standards (71 percent), and assessments that are linked to standards (46 percent). (Exhibit VII-11).

Exhibit VII-11
Districts' Uses of Goals 2000 Funds for Professional Development Focused on Various Topics

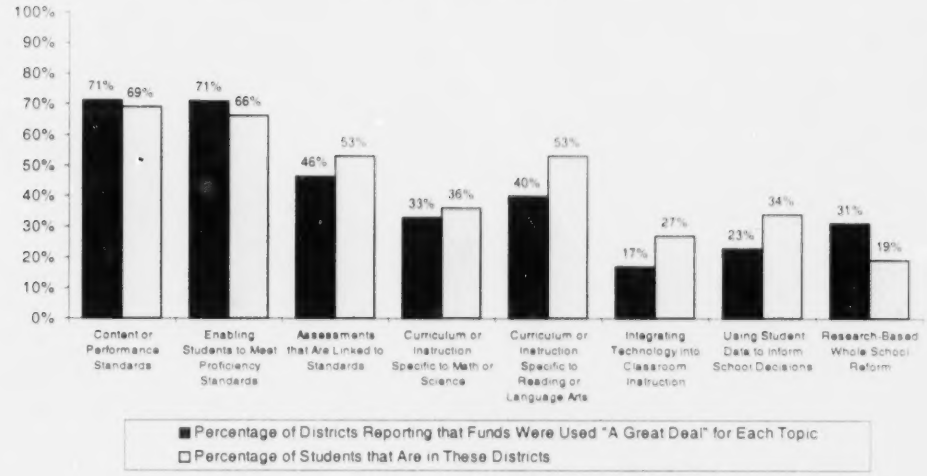

Exhibit reads: **Seventy-one percent of Goals 2000 district coordinators used program funds for professional development activities focused *a great deal* on *district or state content or performance standards.***

Source: District Questionnaire

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For Title I-supported professional development, the most common topic was curriculum and instruction specific to reading or language arts, with 66 percent of Title I directors reporting that they used Title I funds "a great deal" for this topic (Exhibit VII-12). The next most frequent topics were curriculum and instruction specific to math or science (41 percent) and research-based whole school reform efforts (41 percent).[4]

Exhibit VII-12
Districts' Uses of Title I Funds for Professional Development Focused on Various Topics

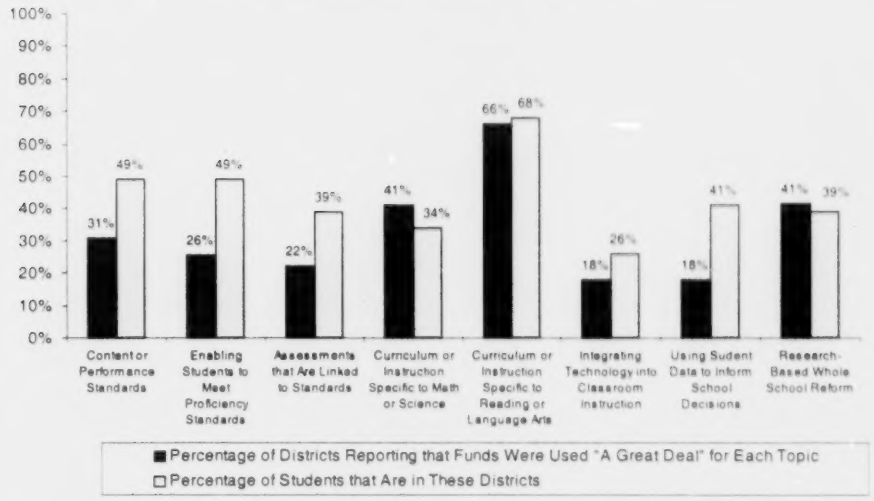

Exhibit reads: **Sixty-six percent of Title I districts used program funds for professional development activities that focused *a great deal* on *curriculum or instruction specific to reading or language arts.*"**

Source: District Questionnaire

Professional development related to standards appeared to be less of a priority for Title I coordinators than for Title II or Goals 2000 coordinators. For example, 31 percent of Title I coordinators reported that these funds supported professional development that focused "a great deal" on content and performance standards, compared with 56 percent of Title II coordinators and 71 percent of Goals coordinators.

[4] Examples of research-based school reform efforts cited in the questionnaire included Accelerated Schools (Levin), Coalition of Essential Schools (Sizer), Reading Recovery, School Development Program (Comer), and Success for All (Slavin).

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Title VI funds were not typically used for professional development activities. Only 24 percent of the districts used Title VI funds to support professional development (Exhibit VII-2), and no more than 11 percent reported supporting professional development focused on any of the specific topics examined (Exhibit VII-13). Among districts that did use Title VI funds for professional development, the most common topics were content or performance standards (11 percent) and enabling students to meet proficiency standards (10 percent).

Exhibit VII-13
Districts' Uses of Title VI Funds for Professional Development Focused on Various Topics

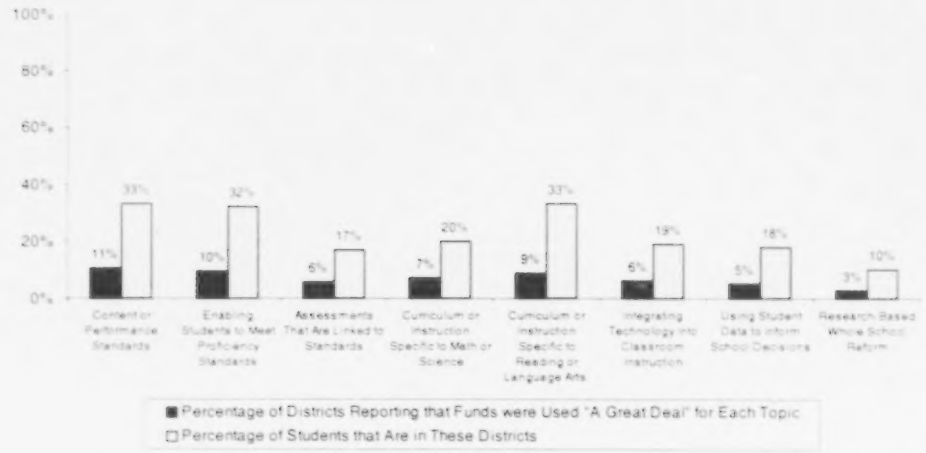

Exhibit reads: **Eleven percent of Title VI district coordinators used program funds for professional development activities focused *a great deal* on *district or state content or performance standards.***

Source: District Questionnaire

As discussed on page 37, large districts were more likely to use Title VI funds for professional development, and so districts using Title VI funds for specific professional development topics account for a somewhat larger percentage of students than of districts. For example, districts using Title VI funds for professional development focused a great deal on content or performance standards accounted for 33 percent of the students although only 11 percent of the districts.

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Types of professional development activities attended by teachers and supported by schools and districts

The types of professional development activities in which teachers participate vary from traditional formats such as workshops to collaborative work that results in a concrete product in addition to teacher learning (e.g., curriculum development). While traditional workshops are the most common form of professional development, they often have not had a long-lasting effect on teachers' practices. Ongoing collaboration is needed for teachers to continually adapt their practices to ever-changing student populations and to advances in technology and content areas.[5] Even with the potential benefits of collaboration, teaching has historically been an autonomous profession.[6] Teachers are responsible for their own classes and have little opportunity to interact with one another. In recent years, literature has suggested that teachers can learn a great deal from one another about how to improve their teaching practices if they have the opportunity to do so. Thus, the definition of professional development has expanded beyond having an expert pass knowledge on to teachers through courses or workshops. These less traditional, more collaborative activities are often reported as being more meaningful since they are sustained and require active intellectual participation.[7]

As many as three-quarters of teachers participated in some form of collaborative work. While few teachers reported receiving release time for these activities, many schools and districts reported supporting teachers' involvement by providing stipends, release time or other reimbursement for expenses related to the activity (Exhibit VII-15). Specific collaborative activities examined in this study are described below.

- **Workshops, conferences, institutes.** Teachers were more likely to attend workshops, conferences, or institutes (80 percent) than participate in any other professional development activity (Exhibit VII-14). Almost all schools and all district professional development coordinators reported supporting teachers' attendance at workshops, conferences, or institutes (Exhibit VII-15).

[5] Talbert, J.E. and McLaughlin, M.W. (1993). Understanding teaching in context. In *Teaching for understanding: Challenges for policy and practice*, edited by D.K. Cohen, M.W. McLaughlin, and J.E. Talbert, pp.1-10. San Francisco: Josey-Bass Publishers.

[6] Lortie, D.C. (1975). *Schoolteacher: a sociological study*. Chicago: University of Chicago Press.

[7] While workshops are usually perceived to be one time seminars with little or no follow-up, they can vary a great deal in quality and in the types of activities they offer. Some workshops involve many active learning components, and thus, can be effective too. It was beyond the scope of this study to investigate the characteristics of the workshops that teachers reported attending and schools and districts reported supporting.

- **Curriculum development.** More than a third of teachers (40 percent) reported developing curriculum in the past year (Exhibit VII-14), and over 90 percent of schools (92 percent) and 85 percent of districts paid for stipends, release time, or other expenses to allow teachers to participate in this activity (Exhibit VII-15). Given the low percentage of teachers (7 percent) reporting that they received release time for developing curriculum, it is likely that the form of support teachers received was stipends or expenditure reimbursement.

- **Standards and assessment development.** Almost half of teachers (47 percent) reported developing standards or assessments in the past year and 10 percent reported receiving release time for this purpose (Exhibit VII-14). More than three-quarters of schools (79 percent) and 92 percent of districts paid for teachers to develop content standards or student assessments (Exhibit VII-15).

- **Collaborative lesson or course planning.** While teacher collaboration is not always productive, providing opportunities does increase the likelihood of teachers learning from one another. More than three-quarters of responding teachers reported planning lessons or courses with each other (Exhibit VII-14), but only 15 percent of teachers reported receiving release time for this purpose. More than three-quarters of schools (76 percent) and 64 percent of districts, however, reported paying for teachers to plan lessons or courses with other teachers (Exhibit VII-15). Again, the form of support could be paying stipends rather than providing time.

- **Teacher observations.** Even if observations are conducted informally, they provide teachers with the opportunity to see and learn from alternative approaches to teaching. However, only 30 percent of teachers reported observing one another's classes for more than half an hour at a time over the course of a year (Exhibit VII-14). While only 3 percent of teachers reported receiving release time for this purpose, 69 percent of schools and 56 percent of the districts reported supporting teachers learning from one another by observing, coaching, or mentoring each other (Exhibit VII-15). One explanation for this apparent contradiction could be that schools and districts pay teachers to mentor rather than provide them with release time. Support for these activities differed between Title I and non-Title I schools. More Title I than non-Title I schools supported teacher observations (73 percent versus 63 percent).

- **Teacher study groups.** One-fourth of teachers (23 percent) reported participating in a teacher study group focused on a particular topic in the past year and about half of those participating reported meeting during the school day (Exhibit VII-14). Two-thirds of schools (63 percent) supported teachers learning from one another by participating in a study group with other teachers (Exhibit VII-15). More non-Title I (69 percent) than Title I schools (58 percent) supported teacher study groups.

Exhibit VII-14
Percentage of Teachers Participating in, and Receiving Release Time for, Various Types of Professional Development Activities

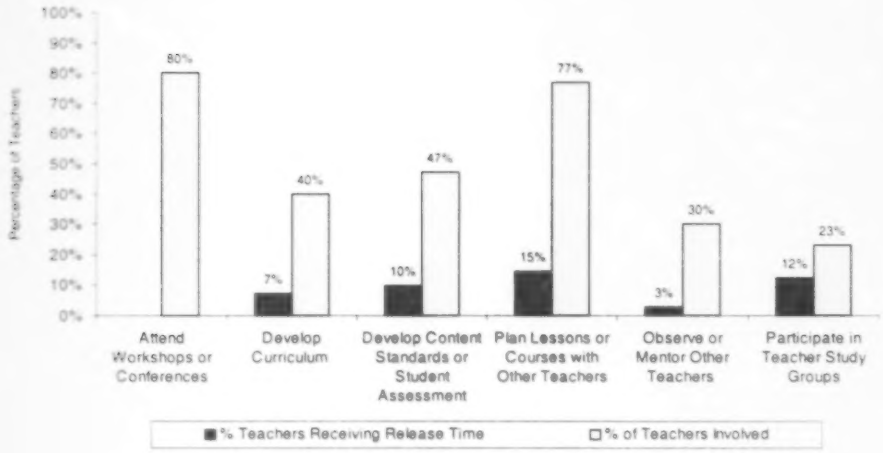

Exhibit reads: **Thirty percent of teachers participated in observations of one another's classes for more than half an hour at a time and 3 percent received release time from their class to do so.**

Source: Teacher Questionnaires

Note: Teachers were not asked whether or not they received release time to attend workshops, conferences, or institutes. For Teacher Study Groups the question asked whether or not they participated during school hours, not whether or not they received release time from class.

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Exhibit VII-15
School and District Support for Various Professional Development Activities

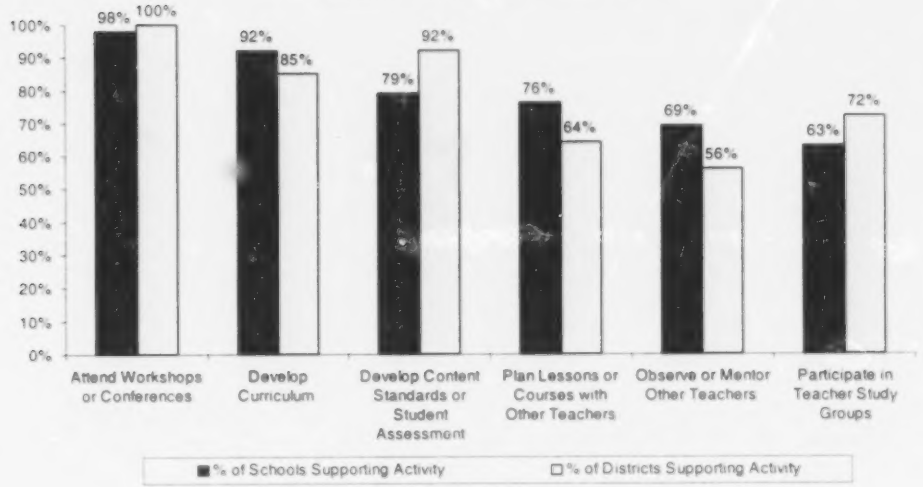

Exhibit reads: **Teacher observations of one another's classes were supported by 69 percent of schools and 56 percent of districts. Thirty percent of teachers participated in observations and 3 percent received release time from their class to do so.**

Source: School and District Questionnaires

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Of these less traditional professional development activities, teachers spent the most time on planning lessons or courses with other teachers. Teachers spent the equivalent of four school days (25 hours per year), on average, on this activity. Although this is greater than the amount of time spent on any other professional development activity, formal or informal, it amounts to less than one hour per week. Teachers spent about 7.5 hours, on average, on developing new curriculum for the school or district, and a similar amount of time on developing content standards, performance standards, or student assessments for the school, district, or state (6.8 hours). Teachers spent very little time observing one another's classes, either formally or informally (3 hours per year) (Exhibit VII-16).

Exhibit VII-16
Average Number of Hours Per Year Teachers Participated in Professional Development Activities

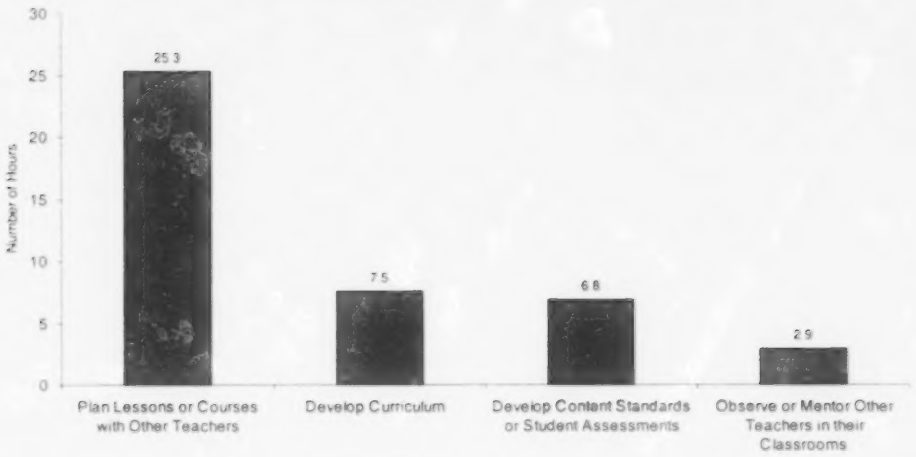

Exhibit reads: **Teachers participated an average of 25 hours per year in collaborative lesson or course planning.**

Source: Teacher Questionnaire

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Types of professional development activities supported by the federal programs in this study

The professional development activity most often reported by all program coordinators as being supported with their program funds was attending workshops, conferences, or institutes (Exhibits VII-17, 18, 19). The second most common activity, however, varied across the individual programs.

For Title II, the second most common professional development activity was development of content standards or assessments, which Title II funds supported in 77 percent of the districts. Two-thirds of districts (67 percent) used Title II funds to support curriculum development (Exhibit VII-17).

Exhibit VII-17
Types of Professional Development Activities Supported by Title II

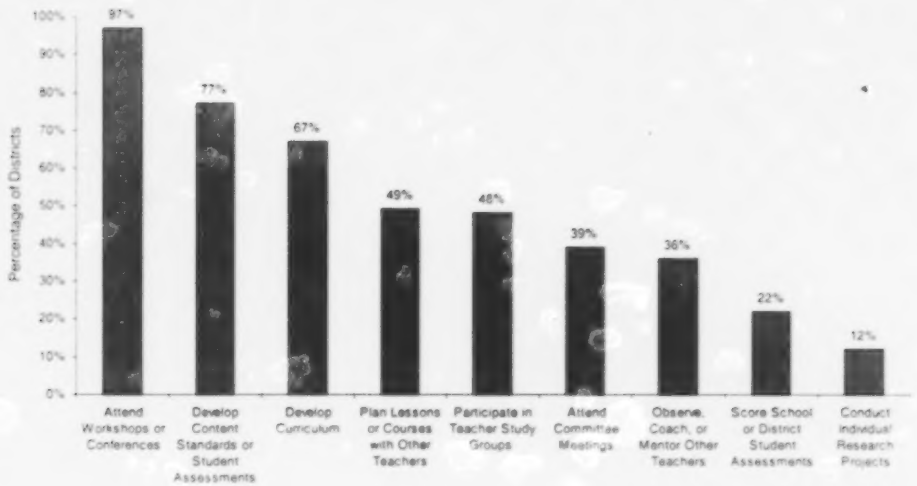

Exhibit reads: **Three-quarters of Title II district coordinators (77 percent) reported using program funds to support the development of content standards or student assessment.**

Source: District Questionnaire

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For Title I, the second most common professional development activity was teacher collaboration in planning lessons or courses (61 percent of districts). The third most common professional development activity supported with Title I funds was paying for teachers to attend school, district, or state improvement committee or task force meetings (52 percent) (Exhibit VII-18).

Exhibit VII-18
Types of Professional Development Activities Supported by Title I

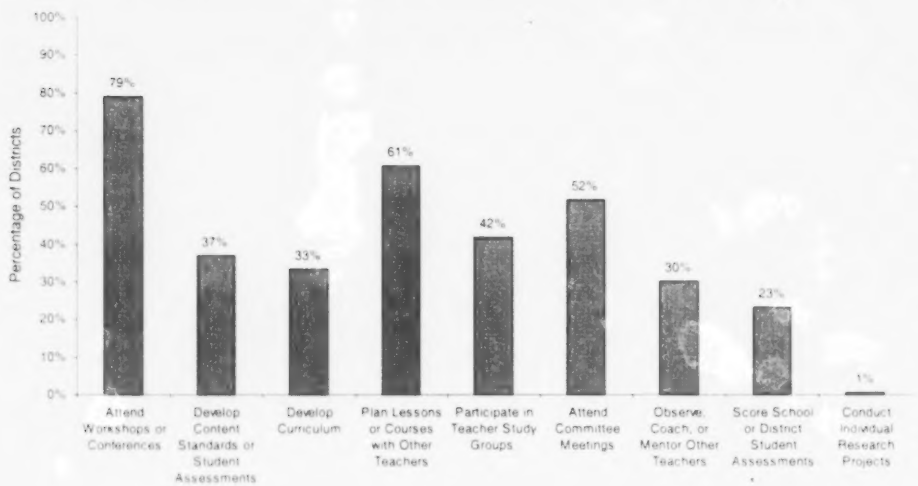

Exhibit reads: **Thirty-seven percent of Title I district coordinators reported using program funds to support the development of content standards or student assessment.**

Source: District Questionnaire

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For Goals 2000, developing curriculum was the second most-frequently supported activity (70 percent of districts), followed by paying for teachers to attend meetings of school, district, or state improvement committees or task forces (61 percent), developing content standards or student assessments (55 percent), and planning lessons or courses with other teachers (54 percent) (Exhibit VII-19).

Exhibit VII-19
Types of Professional Development Activities Supported by Goals 2000

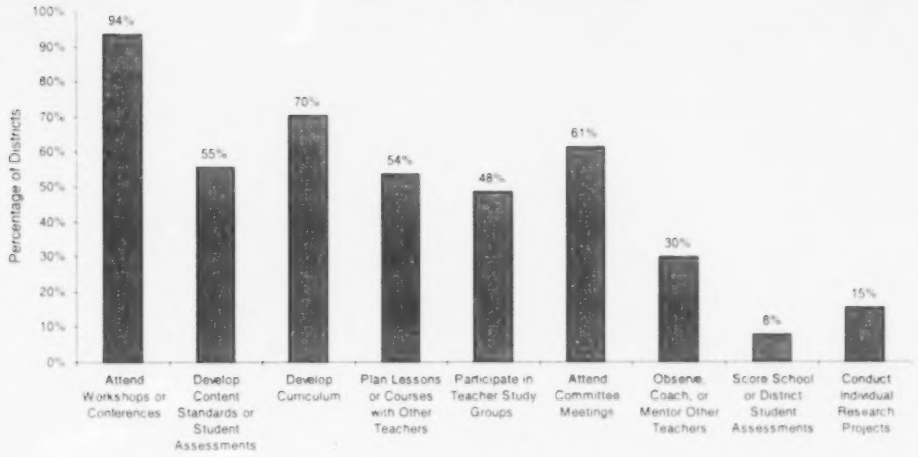

Exhibit reads: **Fifty-five percent of Goals 2000 district coordinators reported using program funds to support the development of content standards or student assessment.**

Source: District Questionnaire

Few program directors reported using funds to support teachers conducting individual research projects, even though a recent study reported that teachers found these projects improved their teaching (Exhibits IV-17, 18, 19).[8] Goals 2000 directors, followed by Title II directors, were the most likely (15 percent and 12 percent, respectively) to support these activities.

[8] National Center for Education Statistics, *Teacher Quality*.

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Decisionmaking about professional development overall and how to use Title II funds in particular

Control of decisions

In half the districts (52 percent), decisions concerning the use of Title II funds were made jointly by schools and districts (Exhibit VII-20). In just over a quarter of the districts (27 percent), decisions were made by the district, but with input from schools. In the other quarter of the districts, decisions were made either entirely by schools (6 percent), entirely by the district (4 percent), or mainly by schools but with input from the district (12 percent).

Exhibit VII-20
Percentage of Districts Reporting District, School, or Joint Control of Decisions About Use of Title II Funds

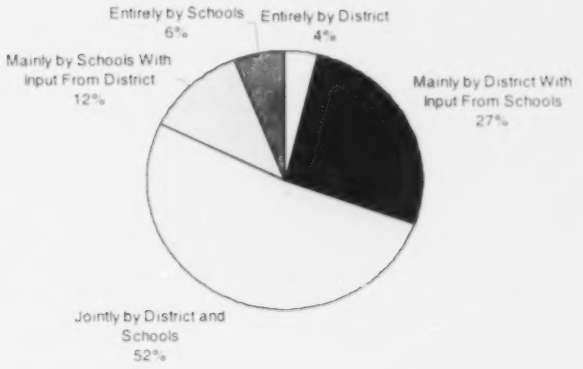

Exhibit reads: **Decisions concerning the use of Title II funds were made jointly by the district and schools in 52 percent of districts.**

Source: District Questionnaire

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Involvement in decisions

District Title II and professional development coordinators were asked about the role of a variety of people in making decisions concerning the use of Title II and district professional development funds generally (Exhibit VII-21). **District curriculum or instructional administrators were most often reported as being primary decisionmakers regarding both Title II and professional development funds generally (54 percent and 55 percent, respectively).** The next most common primary decisionmakers were district Title II coordinators (46 percent and 45 percent, respectively), followed by teachers (25 percent and 29 percent, respectively) and school administrators (24 percent and 37 percent, respectively). Parents and school boards were rarely reported to be primary decisionmakers.

Exhibit VII-21
Primary Decisionmakers Concerning the Use of Title II and District Professional Development Funds, as Reported by Districts

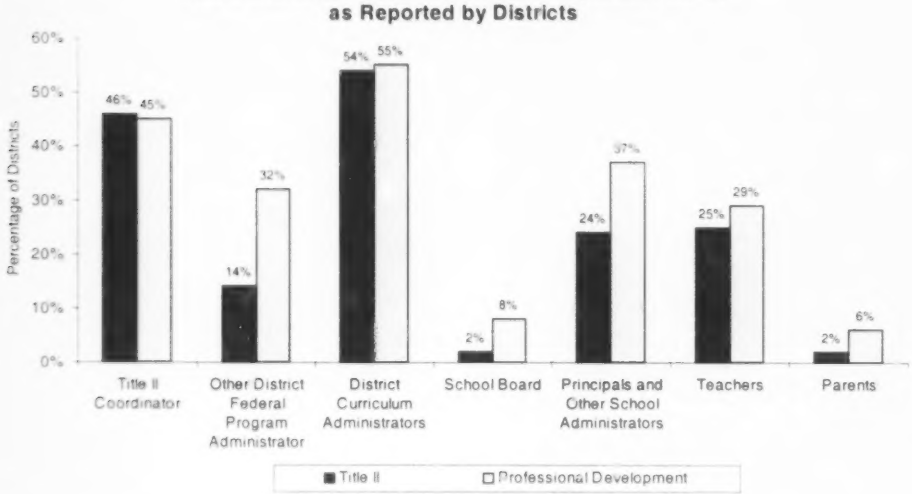

Exhibit reads: **District curriculum administrators were the primary decisionmakers concerning the use of Title II funds in 54 percent of districts and were the primary decisionmakers concerning the use of professional development funds in 55 percent of districts.**

Source: District Questionnaire

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Factors influencing decisions about the use of Title II funds

Districts can refer to a variety of data sources to determine which topics and types of professional development they should support with district professional development funds generally and with Title II funds specifically. **Student performance data and assessment of teacher needs were the most common factors reported as "extremely influential" in making decisions about both types of funds** (Exhibit VII-22). Almost 60 percent of district professional development coordinators (59 percent) and Title II coordinators (57 percent) reported that student performance data was "extremely influential" in making decisions about the use of their funds. In a quarter of the districts (24 percent), research showing that particular program models work well was "extremely influential" in Title II decisions. Compared with Title II coordinators' decisions about Title II funds, district professional development coordinators more often reported using results from local program evaluations to make decisions about the use of professional development funds (30 percent versus 19 percent).

Exhibit VII-22
Factors that Were "Extremely Influential" in Deciding How to Use District Professional Development and Title II Funds

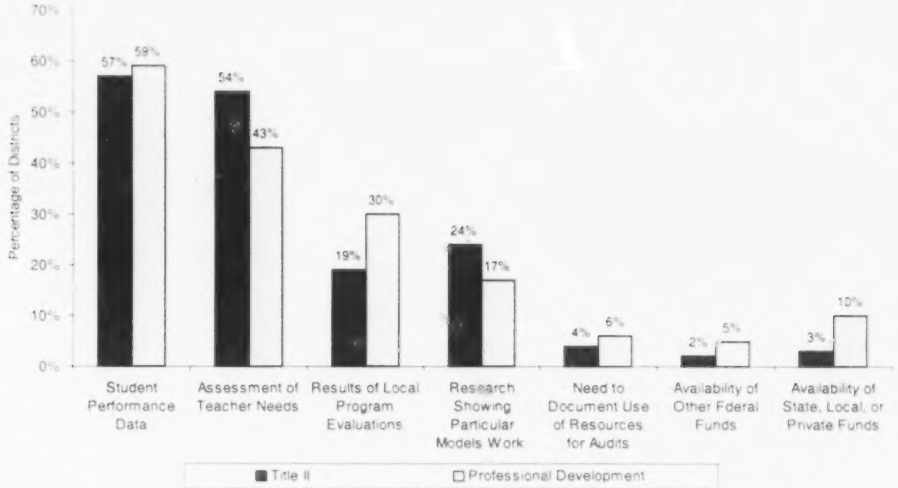

Exhibit reads: **Student performance data was "extremely influential" in making decisions about the use of Title II funds in 57 percent of districts.**

Source: District Questionnaire

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In taking into consideration policies and priorities from various constituencies, districts most often reported long-term district plans (61 percent) as being "extremely influential" in making decisions about the use of Title II funds (Exhibit VII-23). Less than half of districts reported state policies (45 percent) and priorities of individual schools (41 percent) as "extremely influential." Few Title II coordinators (8 percent) reported parent priorities as being "extremely influential" in decisionmaking. District professional development coordinators and Title II coordinators reported using similar priorities in making decisions about the use of their funds. The only exception was that parent priorities were more often extremely influential in district professional development decisions when compared with Title II decisions (17 percent versus 8 percent).

Exhibit VII-23
Priorities that Were "Extremely Influential" in Deciding How to Use District Professional Development and Title II Funds

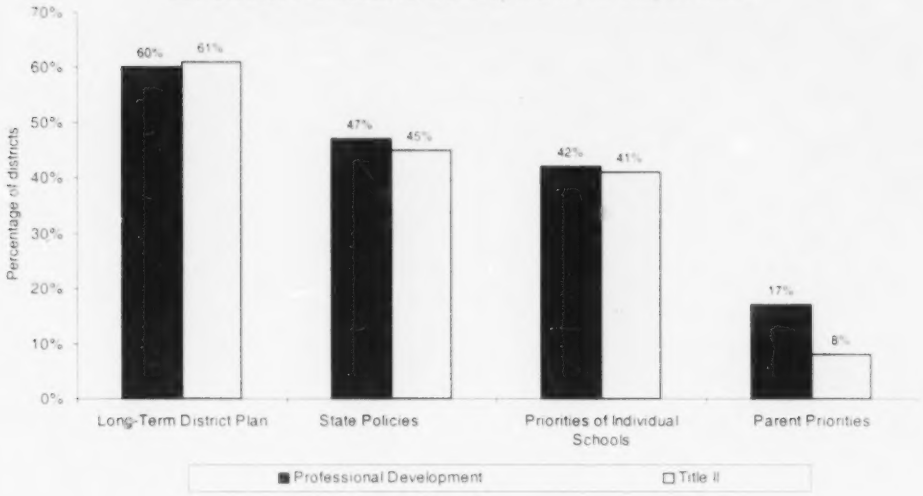

Exhibit reads: **In 61 percent of districts, the long-term district plan was *extremely influential* in making decisions about the use of Title II funds.**

Source: District Questionnaire

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Summary

Federal programs provide extensive support for professional development. Overall, the federal programs in this study provided $785 million in revenues for professional development in school districts and schools for the 1997-98 school year. While Title II is the main source of specific federal funds for professional development, funding from other programs was frequently used to support professional development as well.

Topics of professional development activities supported by the federal programs in this study were generally aligned with the purpose of the programs. Appropriately, districts' uses of federal funds for professional development topics reflected differences in the federal program goals. Teachers participated in professional development activities focused on specific content areas such as mathematics or reading more than any other topic.

Workshops, conferences, or institutes were the most prevalent type of professional development activity supported by federal programs, districts, and schools, and attended by teachers. Many teachers also reported some participation in less traditional forms of professional development, but spent little time in these activities. While many schools, districts, and federal program coordinators reported supporting teacher involvement in collaborative work, few teachers reported receiving release time to participate in activities. Lack of time could help explain the lack of intensity of teacher participation in nontraditional forms of professional development.

District decisions about the use of Title II funds were often made jointly by districts and schools, with the district curriculum administrator most often serving as a primary decisionmaker. In making decisions about the use of Title II and district professional development funds, districts most often reported student performance data and assessment of teacher needs as data sources that were extremely influential.

Chapter VIII

Increasing Access to Technology

As technology becomes an increasingly important part of our everyday lives, it will be critical to provide access to technology for all children in our school system. The data presented in this chapter show that federal funding not only contributes significantly to spending on technology, but also tends to improve the equity of access to technology in the highest-poverty and low-poverty schools.

Expenditures on technology

Technology expenditures represent a combination of spending on computer hardware and software, connectivity-related equipment and personnel, maintenance and technical support, and training. In fiscal records, such expenditures may be recorded under capital outlay for computer hardware, instructional supplies and materials for computer software, contracted services for professional development specialists or trainers, salaries and benefits for those who maintain and provide technical support for the hardware and software, and the salaries and benefits associated with the time of those receiving training.[1]

[1] From an accounting standpoint, this represents a combination of functional and object level designations. Accountants categorize expenditures by function and object codes. Function codes refer to the purpose for which the money is used, and common functional categories in education include instruction, administration, student support services, operations and maintenance. Objects of expenditure generally refer to the categories of resources for which dollars are used, and common object codes generally refer to salaries and benefits for teachers or school administrators, books and supplies, or capital equipment.

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Federal support for technology

The five federal programs in chart below provided $688 million in support for technology for the 1997-98 school ~~year~~ (Exhibit VIII-1). Two programs focused on technology, the Technology Literacy Challenge Fund and Technology Innovation Challenge Grants, provided $244 million (35 percent of the total provided through these five programs). District and school spending on technology from Title I amounted to $287 million, significantly more than the funds appropriated for the two technology-focused programs. Districts also drew significant support for technology from Goals 2000 ($85 million) and Title VI ($72 million).

Exhibit VIII-1
Financial Contribution of Five Federal Programs to Funding for Technology

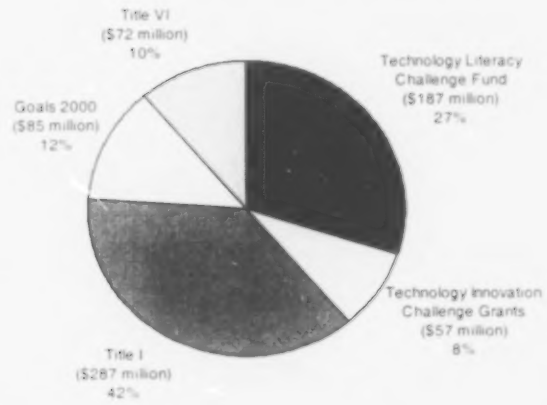

Exhibit reads: **District and school spending on technology from Title I amounted to $287 million, significantly more than the funds appropriated for the two technology-focused programs.**

Source: District federal programs budget data

Note: Technology Innovation Challenge Grants are included in this exhibit in order to provide a more complete picture of federal funds available for technology, although this program is not otherwise included in this study.

This study was intended to estimate the share of total spending on technology that is derived from federal funding, but only six districts provided sufficient information to estimate total spending on technology compared with the federal contribution. In these 6 districts, the share of technology resources that was provided through federal funds

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ranged from 9 percent to 30 percent, with a weighted average of 22 percent. However, because these figures are based on such a small number of districts, they should be considered as very tentative estimates and an area where more data are needed.[2]

District use of technology funds

The strategies for increasing access to technology involve a combination of purchasing additional computers and providing additional training on the use of computers. District decisionmakers indicated that increasing teachers' (84 percent) and students' (83 percent) access to technology were the top two strategies (Exhibit VIII-2). These two strategies involve purchases of additional computers for use by teachers and students. The next two strategies included developing teachers' skills in using technology (75 percent) and integrating technology into classroom instruction (72 percent). Both of these strategies require providing professional development to teaching staff. The fifth strategy involved increasing students' access to the internet (71 percent).

Exhibit VIII-2
Percentage of Districts Reporting Specific Strategies For Increasing the Use of Technology in Their Schools

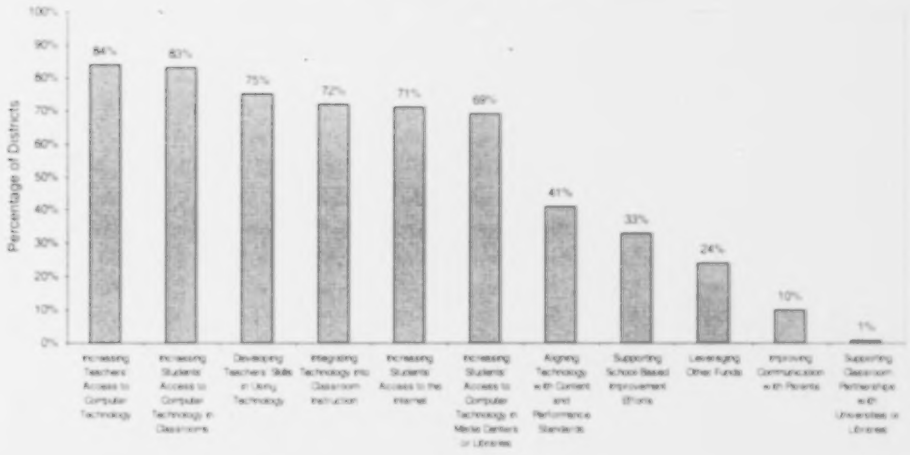

Exhibit reads: **Eighty-four percent of districts indicated that they used technology funds *a great deal* to increase teachers' access to computer technology.**

Source: District Questionnaire

[2] The average of 22 percent was based on student-weighted data so that district size was taken into account in developing the estimate from the six districts.

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Factors influencing district decisions about the use of technology funds

Almost 80 percent of the districts reported that the long-term district plan was "extremely influential" in decisions about the use of technology funds (Exhibit VIII-3). Other frequently reported factors influencing district decisions about the use of technology funds included the extent of the need for technology equipment, software, and training at individual schools (47 percent), state policies (39 percent), priorities of individual schools (38 percent), and supporting special technology programs at individual schools (27 percent).

Exhibit VIII-3
Percentage of Districts Reporting the Following Factors Were "Extremely Influential" in District Decisions About How to Use Technology Funds

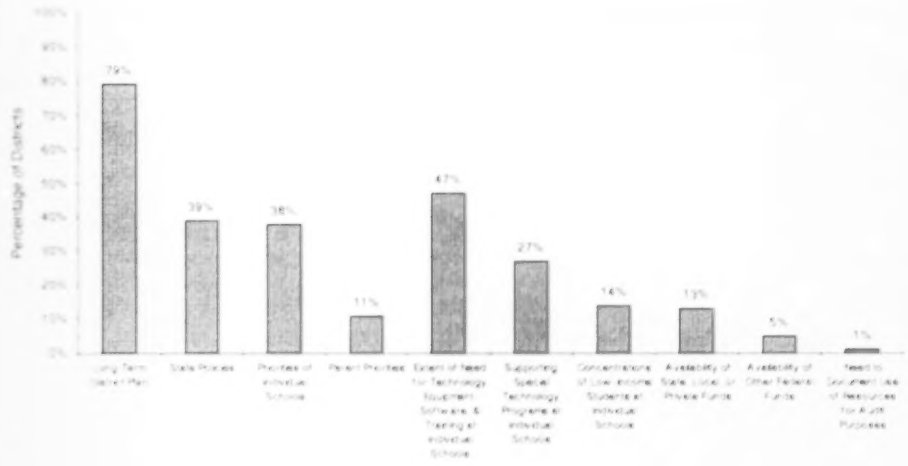

Exhibit reads: **Seventy-nine percent of the districts indicated that the *long-term district plan* was *extremely influential* in district decisions about how to use technology funds.**

Source: District Questionnaire

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Federal support for new computers in schools

Federal funds paid for one-fourth (24 percent) of the new computers that schools received during the 1997-98 school year, and half of these were purchased with Title I funds (13 percent) (Exhibit VIII-4). State and local funds paid for two-thirds (66 percent) of the new computers, and private sources (which may include parent-teacher associations, businesses, and foundations) provided 10 percent of the new computers. Overall, the average school received a total of 11.8 new computers per 500 students in the 1997-98 school year.

Exhibit VIII-4
Average Number of New Computers Per 500 Students that Schools Received in 1997-98 from Various Funding Sources

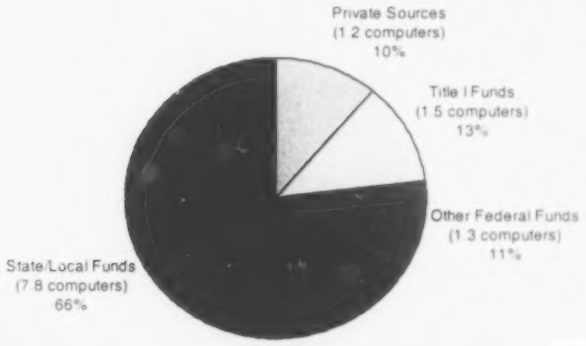

Exhibit reads: **The average school received 7.8 new computers per 500 students in 1997-98 from state and local funds.**

Source: School Questionnaire

The following analysis compares the number of new computers received by different types of schools from various funding sources in the 1997-98 school year, based on a typical-size school of 500 students.[3]

[3] The Preliminary Report for this study reported comparisons between different groups of schools that were distorted by differences in the average enrollment size of each type of school. For example, it reported that secondary schools received more than twice as many new computers (24.6) as elementary schools (10.8), but this difference partly reflected that secondary schools were on average much bigger than elementary schools. Similarly, the previously-reported findings that Title I schools received fewer new computers than non-Title I schools was affected by the fact that Title I schools were more likely to be elementary schools, and thus to have

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Elementary and secondary schools reported receiving similar numbers of new computers (12.6 and 11.3, respectively, for a school of 500 students) (Exhibit VIII-5). State and local funds provided a smaller number of new computers in elementary schools (7.0) than in secondary schools (8.5). In contrast, elementary schools received a greater number of new computers from Title I (2.7) and other federal funds (1.6) than did secondary schools (0.6 and 1.0, respectively).

Exhibit VIII-5
Number of New Computers Schools Received in 1997-98 by Funding Source and School Grade Level per School of 500 Students

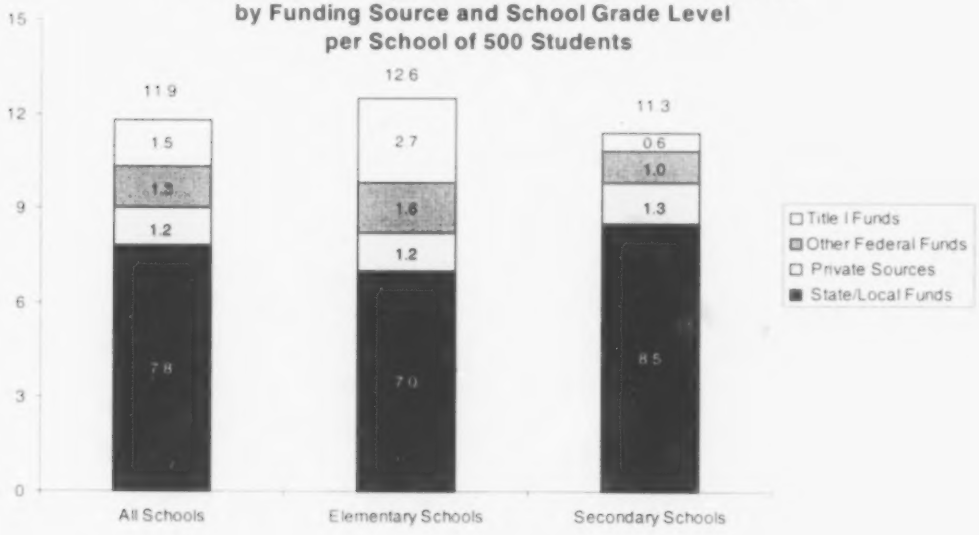

Exhibit reads: **The average elementary school of 500 students received 7.0 new computers from state and local funds in 1997-1998.**

Source: School Questionnaire

smaller average enrollments. Holding school size constant by calculating the number of new computers per school of 500 students avoids this distortion and provides more accurate comparisons.

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At the elementary level, Title I schools received more new computers (14.4) than did non-Title I schools (8.2) (Exhibit VIII-6). In part this was due to the use of Title I funds to purchase additional computers (3.8). However, Title I elementary schools received more computers from other federal funds (2.1, compared with 0.6 in non-Title I schools) and from state and local funds (7.6, compared with 5.7 in non-Title I schools).

Exhibit VIII-6
Number of New Computers that Elementary Schools Received in 1997-98 by Funding Source and Type of School per Elementary School of 500 Students

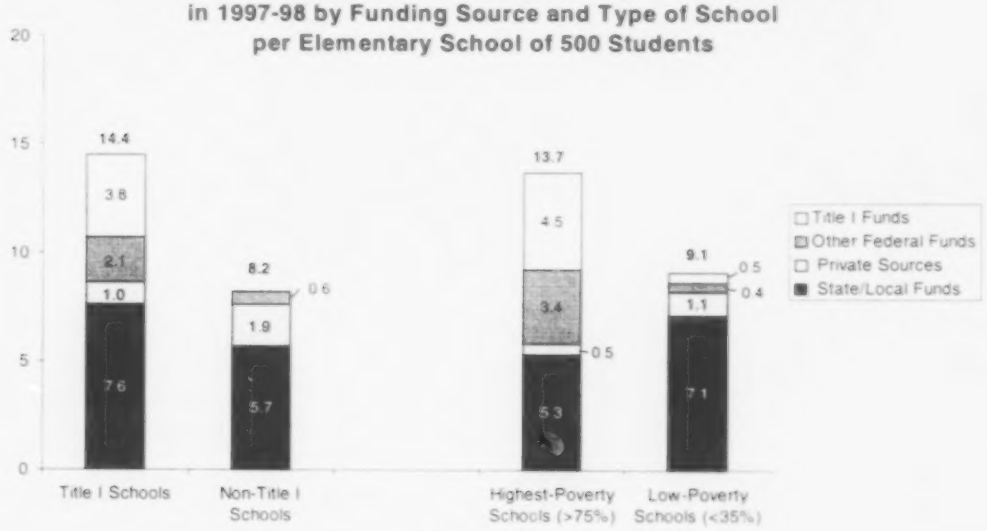

Exhibit reads: **The average Title I school of 500 students received 7.6 new computers from state and local funds in 1997-98.**

Source: School Questionnaire

The highest-poverty elementary schools also received more new computers (13.7) compared with low-poverty elementary schools (9.1). The highest-poverty schools received more computers from Title I (4.5, compared with 0.5 in low-poverty schools) and from other federal funds (3.4, compared with 0.4 in low-poverty schools). This more than compensated for the smaller numbers of new computers they received from state and local funds and from private sources.

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Federal funds provided much more support for new computers in high-poverty schools than in low-poverty schools. In the highest-poverty schools, Title I funds alone paid for 29 percent of the new computers and federal funds from all sources paid for 53 percent of the new computers. The highest-poverty elementary schools received an even greater share of their new computers through Title I (33 percent) and federal funds overall (58 percent). In contrast, low-poverty elementary schools received a relatively small number of new computers either from Title I (5 percent) or from federal funds overall (10 percent).

Access to technology resources

Quantity, quality, and connectivity of computers

Overall, high-poverty schools had less access to technology than low-poverty schools in terms of the quantity, quality, and connectivity of computers. The highest-poverty schools had only one computer for every 17 students, while low-poverty schools averaged one computer for every 12 students (Exhibit VIII-7).

Exhibit VIII-7
Average Number of Students per Computer

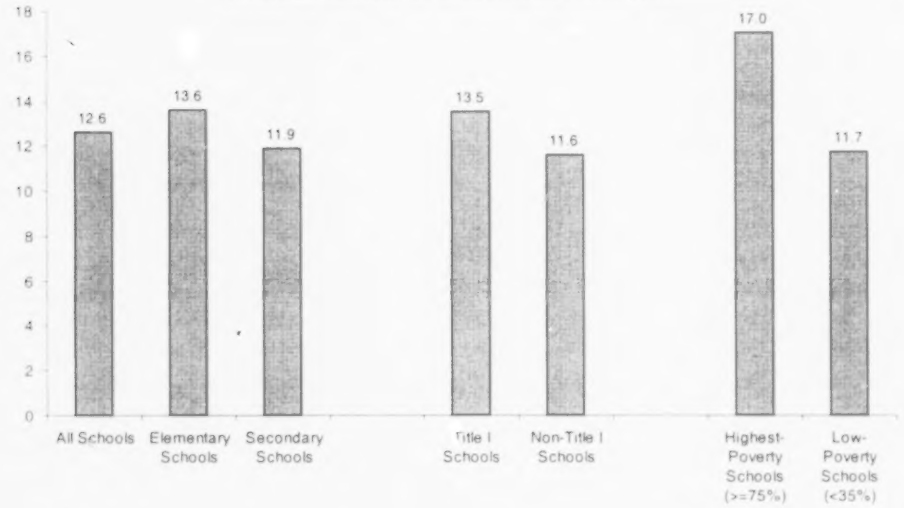

Exhibit reads: **An average school had one computer for every 12.6 students.**

Source: School Questionnaire

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Computers in high-poverty schools were less likely to be more advanced models with multimedia capabilities; at the elementary level, 40 percent of instructional computers were multimedia in the highest-poverty schools, compared with 52 percent in low-poverty schools (Exhibit VIII-8). Computers in the highest-poverty schools were also less likely to be connected to the internet (22 percent) than those in low-poverty schools (34 percent) (Exhibit VIII-9).

Exhibit VIII-8
Percentage of Instructional Computers that Are Multimedia Computers

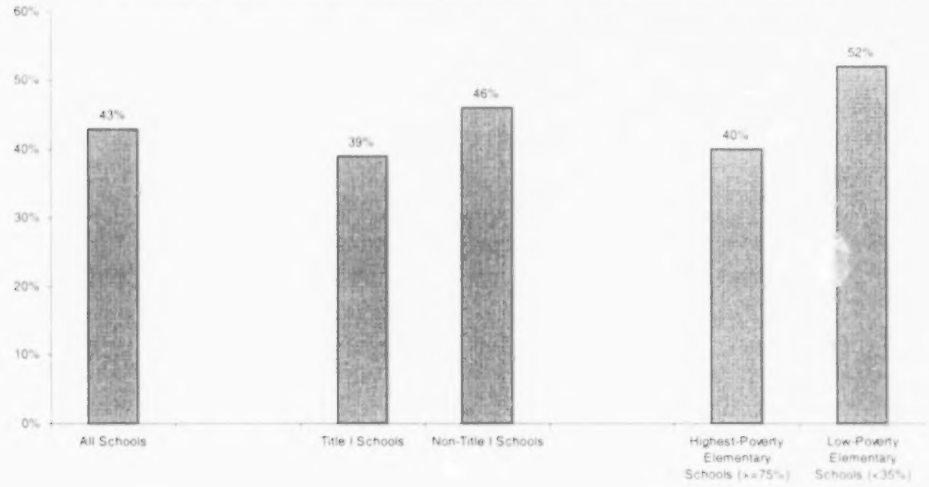

Exhibit reads: **In the average school, 43 percent of the computers used for instruction were multimedia computers.**

Source: School Questionnaire

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Exhibit VIII-9
Percentage of Instructional Computers that Have Internet Access

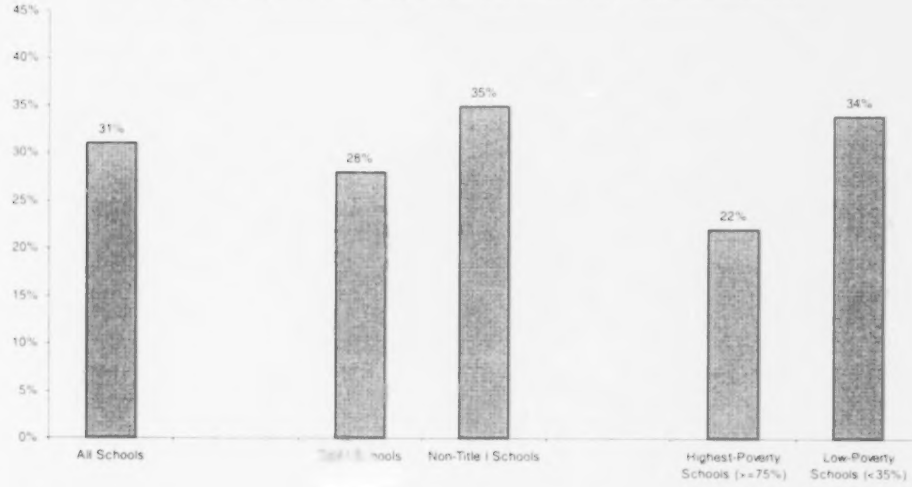

Exhibit reads: **In the average school, 31 percent of instructional computers were connected to the internet.**

Source: School Questionnaire

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Similarly, classrooms in the highest-poverty schools had less connectivity to the internet than those in low-poverty schools (26 percent vs. 35 percent), as well as to local area networks (30 percent vs. 44 percent) and wide area networks (14 percent vs. 31 percent) (Exhibit VIII-10).

Exhibit VIII-10
Connectivity of Classrooms: Percentage With Access to the Internet, Connected by a LAN, and Connected to a WAN

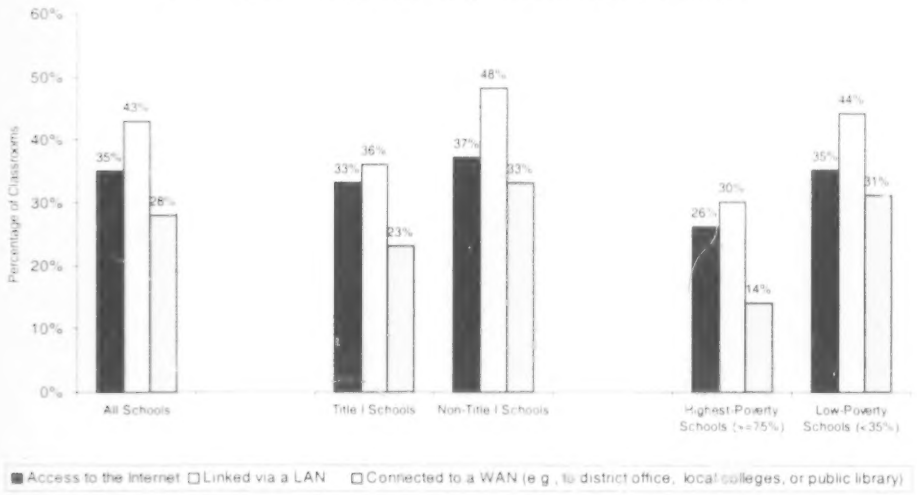

Exhibit reads: **In the average school, more than 35 percent of the computers were connected to the internet, 43 percent were connected together through a local area network, and 28 percent were connected to a wide area network.**

Source: School Questionnaire

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Frequency that teacher lessons require students to use computers or the internet

Most teachers reported that their lessons required students to use computers, but relatively few incorporated use of computers on a daily basis. Nearly three-fourths (70 percent) of classroom teachers reported that their students used computers at least once a month, but only 17 percent reported daily use (Exhibit VIII-11).

Exhibit VIII-11
Frequency that Classroom Teachers' Lessons Require Use of Computers and the Internet

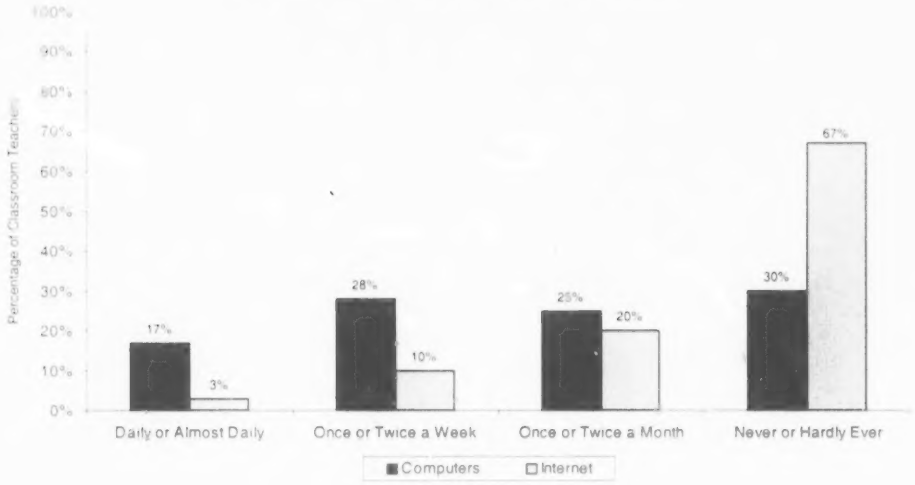

Exhibit reads: **Seventeen percent of classroom teachers indicated that their lessons required students to use computers at least daily.**

Source: Teacher Questionnaire

Teachers typically did not integrate use of the internet into their instruction or expectations for their students. Two-thirds (67 percent) of classroom teachers reported that their lessons "never or hardly ever" required students to use the internet; 13 percent reported weekly or daily use (Exhibit VIII-11).

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Computer and internet use was much more prevalent in elementary schools than in secondary schools. Two-thirds (65 percent) of elementary school teachers reported weekly or daily use of computers, compared with 29 percent of secondary school teachers. Similarly, 20 percent of elementary school teachers reported weekly or daily use of the internet, compared with 7 percent of secondary school teachers (Exhibit VIII-12). There did not appear to be any substantial differences between Title I teachers and regular classroom teachers in how often they use computers or the internet.

Exhibit VIII-12
Percentage of Classroom Teachers Whose Lessons Require Students to Use Computers or the Internet at Least Once a Week, by Grade Level

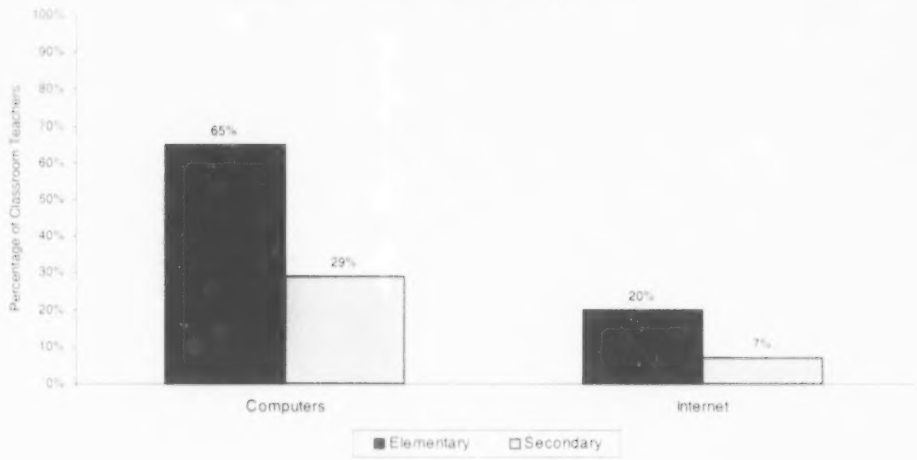

Exhibit reads: **Sixty-five percent of elementary classroom teachers required students to use computers or the internet at least once a week.**

Source: Teacher Questionnaire

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Schools' and teachers' perceptions of barriers to effective use of technology

More than two-thirds (70 percent) of school principals reported that the major barrier to effective use of technology was "insufficient teacher understanding of ways to integrate technology into the curriculum" (Exhibit VIII-13). However, principals also reported that lack of software integrated with the curriculum (68 percent), insufficient number of computers (66 percent), and insufficient technical support (58 percent) were also major barriers to effective use of technology.

While teachers themselves also reported that insufficient teacher understanding was a barrier (45 percent), they were more likely to express concern about an insufficient number of computers (71 percent), lack of software that was integrated with the school's curriculum (60 percent), and insufficient technical support (49 percent).

Exhibit VIII-13
Barriers to Effective Use of Technology:
Principal and Teacher Perspectives

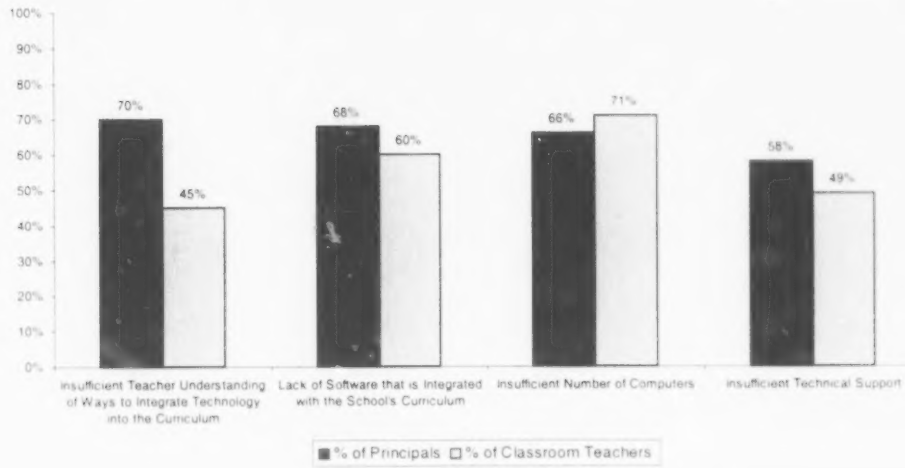

Exhibit reads: **Seventy percent of school principals and 45 percent of classroom teachers reported that *insufficient teacher understanding of ways to integrate technology into the curriculum* was a major barrier to effective use of technology.**

Source: School Questionnaire

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District technology coordinators indicated that professional development activities had focused "a great deal" on using technology to support a variety of activities in the last two years. Developing teachers skills in using technology was the most common focus of professional development related to technology (91 percent of districts). However, districts also reported that professional development activities focused "a great deal" on using technology to enable students to meet proficiency standards (72 percent) and to support curriculum and instruction specific to math and science (47 percent) or reading and language arts (32 percent) (Exhibit VIII-14).

Exhibit VIII-14
Percentage of Districts Reporting that Professional Development Focused "A Great Deal" on Using Technology to Support Various Activities or Strategies

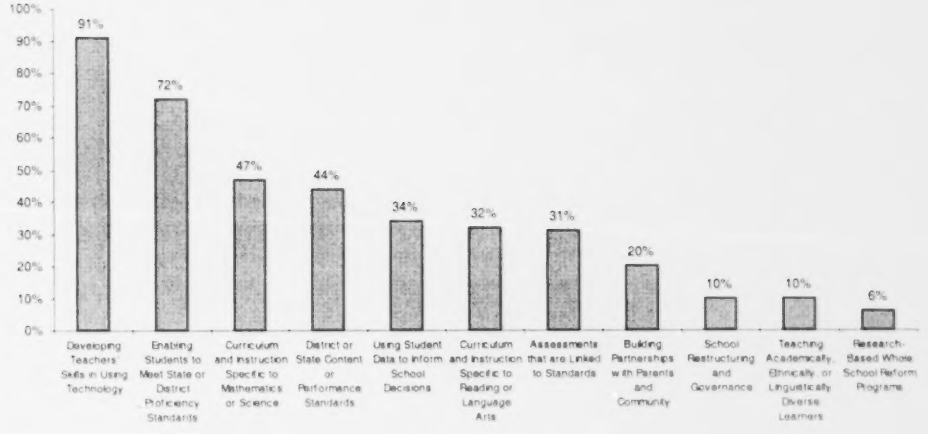

Exhibit reads: **91 percent of school districts reported that professional development focused *a great deal* on developing teachers' skills in using technology.**

Source: District Questionnaire

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Summary

This chapter shows that federal funding not only contributes significantly to spending on technology, but also helps to equalize the access between the highest-poverty and low-poverty schools. Four ESEA programs and Goals 2000 provided an estimated $688 million in FY 1997 funds to support increased access to technology in school districts and schools. Two programs focused on technology, the Technology Literacy Challenge Fund and Technology Innovation Challenge Grants, provided 35 percent of this total amount, but district and school spending on technology from Title I amounted to more than the funds appropriated for the two technology-focused programs. Significant support for technology also came from Goals 2000 and Title VI.

Federal programs provided significant support for purchases of new computers, with federal funds paying for one-fourth (24 percent) of the new computers that schools received during the 1997-98 school year. Federal funds were a much more significant source of support for new computers in the highest-poverty schools, where Title I funds alone paid for 29 percent of the new computers and federal funds from all sources paid for 53 percent of the new computers.

Nevertheless, these federal resources supplemented an uneven base of technology resources provided through state and local funds across high- and low-poverty schools, and high-poverty schools had less access to technology than low-poverty schools in terms of the quantity, quality, and connectivity of computers. After using Title I and other federal funds, the highest-poverty schools received more new computers in the 1997-98 school year (13.9) than the low-poverty schools (10.7). Despite this finding, the highest-poverty schools had only one computer for every 17 students, while low-poverty schools had one computer for every 12 students. Classrooms in the highest-poverty schools were less likely than low-poverty schools to be connected to the Internet, local area networks, or wide area networks.

Most teachers reported that their lessons required students to use computers, but relatively few incorporated use of computers on a daily basis, and they did not typically integrate use of the Internet into instructional activities. A major barrier to effective use of technology was insufficient teacher understanding of ways to integrate technology into the curriculum, according to both principals and teachers, although teachers were more likely to express concern about an insufficient number of computers, lack of software integrated with the school's curriculum, and insufficient technical support. To address the knowledge barrier, more than 90 percent of districts indicated that professional development had focused "a great deal" on developing teachers' skills in using technology.

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Chapter IX

Standards-Based Reform and the Goals 2000 Program[1]

The Goals 2000 program provided $476 million in FY 1997 funds to promote systemic educational reform, primarily by supporting the development and implementation of state and district content and performance standards. The program allows individual states and districts to design and implement the school improvements they believe are most needed. More specifically, Goals 2000 supports state, district, and school efforts to adopt high standards for what students are expected to know and be able to do, and to align assessments and accountability, professional development efforts, and broad community involvement and coordination.

Districts often used Goals 2000 funds to implement standards by providing professional development for teachers. Goals 2000 funds within districts were most often available to schools or teachers wishing to participate (39 percent) or to all schools in the district (35 percent). The remaining districts largely targeted funds to schools with low student achievement (23 percent).

[1] The Goals 2000 data presented in this chapter are based on a sample of 99 districts responding to the survey that received Goals 2000 funds, which is somewhat smaller than the number of respondents that received funds from other programs in this study (ranging from 144 respondents for Title I to 136 for Title IV). Overall, Goals 2000 grants went to about 6,700 school districts in FY 1997, compared with about 12,900 districts receiving Title I funds.

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Activities promoting the development and implementation of standards

District uses of Goals 2000 funds

Consistent with the purpose of the Goals 2000 program, districts reported that they most commonly use funds for activities related to implementing state or district content or performance standards (Exhibit IX-1). Most districts (89 percent) used Goals 2000 funds "a great deal" to aid teachers in implementing standards by providing professional development linked to standards. Three-fourths of districts (76 percent) used funds for aligning curriculum and instruction with standards, and 70 percent used funds for developing assessments linked to standards. Other frequent uses of Goals 2000 funds were expanding the use of technology (62 percent) and supporting school-based improvement efforts (48 percent).

Exhibit IX-1
Percentage of Districts Using Goals 2000 Funds "A Great Deal" for Various Purposes

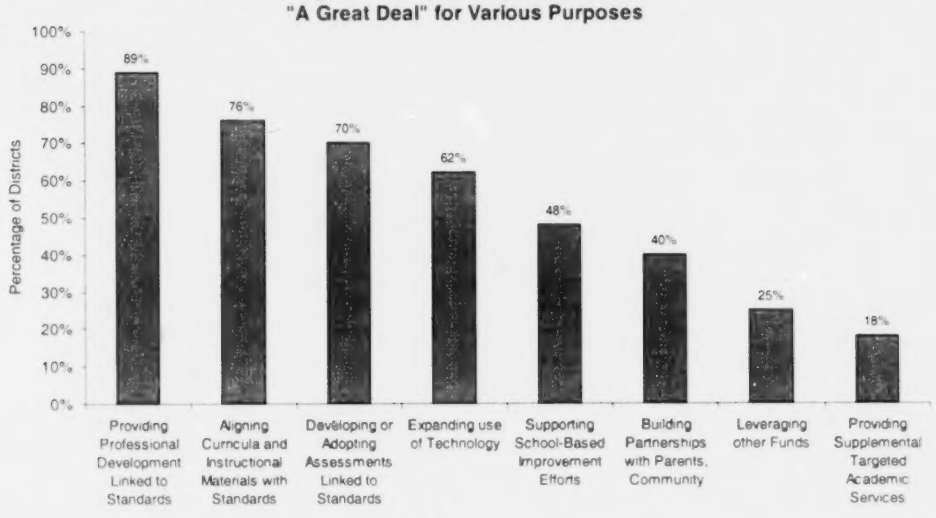

Exhibit reads: **Eighty-nine percent of districts use Goals 2000 funds a great deal for *providing professional development linked to standards.***

Source: District Questionnaire

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Because Goals 2000 funds are used so frequently for professional development, it is important to look at the actual topics supported by the program. **By far the most common professional development topics supported by Goals 2000 funds were district or state content or performance standards (71 percent) and enabling students to meet state or district proficiency standards (71 percent)** (Exhibit IX-2). The next most commonly supported topic was assessments linked to standards (46 percent).

Exhibit IX-2
Percentage of Districts Using Goals 2000 Funds to Support Professional Development Activities Focused "A Great Deal" on Various Topics

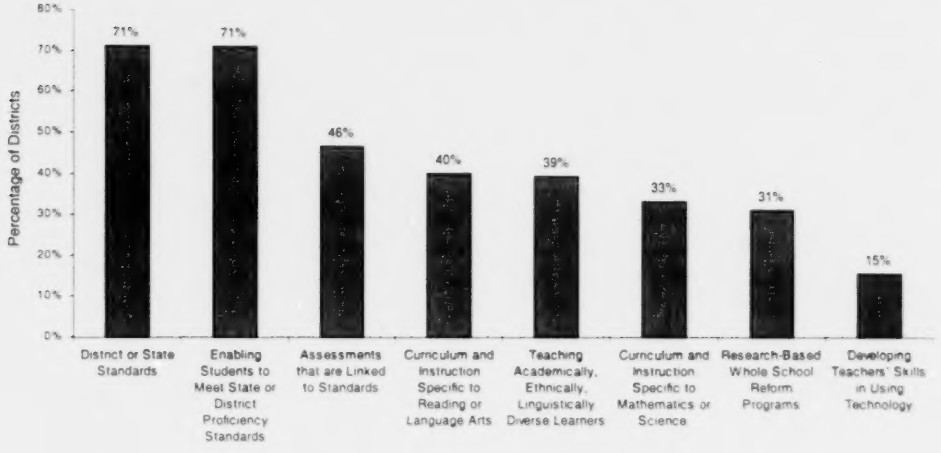

Exhibit reads: **In 71 percent of districts, professional development activities funded by Goals 2000 focus a great deal on *district or state content or performance standards.***

Source: District Questionnaire

Forty percent of districts used funds for professional development activities focused "a great deal" on curriculum and instruction specific to reading or language arts and on teaching academically, ethnically, or linguistically diverse learners (39 percent). Even though districts often used Goals 2000 funds for expanding the use of technology, only 15 percent used funds for activities focused "a great deal" on developing teachers' skills in using technology.

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Districts were much more likely to use Goals 2000 funds for activities related to implementation of standards than they were to use Title I or Title VI funds for this purpose. Seventy-one percent of Goals 2000 grantees used these funds "a great deal" to provide professional development focused on content and performance standards, while 31 percent of grantees used Title I funds "a great deal" for this purpose and 11 percent of districts used Title VI funds for this purpose (Exhibit IX-3). Similarly, Goals 2000 funds were more likely to be used for aligning curricula and instructional materials with standards and for developing or adopting assessments linked to the standards.

Exhibit IX-3
Percentage of Districts Using Federal Program Funds "A Great Deal" for Professional Development Related to Standards

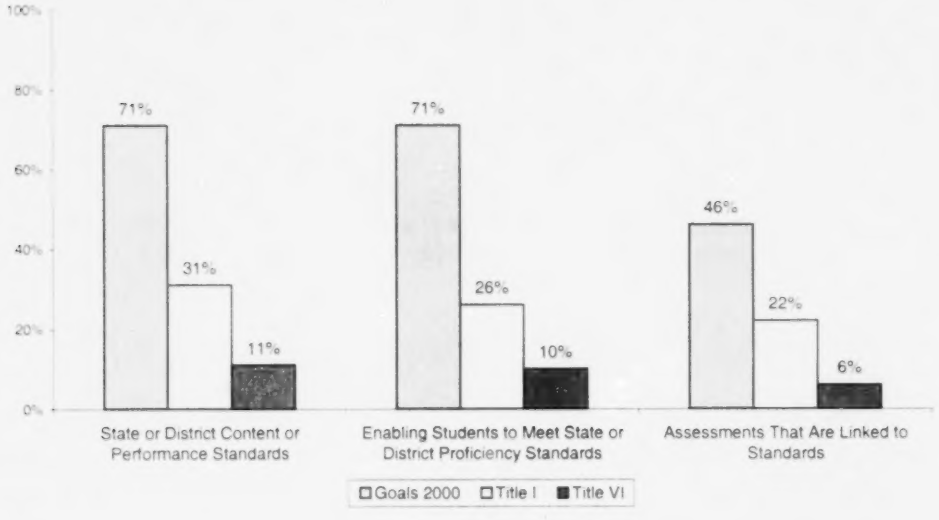

Exhibit reads: **Districts were much more likely to report using Goals 2000 funds "a great deal" for professional development focused on standards (71 percent of Goals districts) compared with Title I or Title VI funds (31 percent of Title I districts and 11 percent of Title VI districts).**

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Large districts were more likely than small districts to use Title I and Title VI funds for activities related to implementing standards, and so districts that used these funds for implementing standards accounted for a higher percentage of students than of districts. For example, districts that used Title VI funds to provide professional development focused on standards accounted for only 11 percent of all Title VI districts but 33 percent of all students in Title VI districts (Exhibit IX-4). Similarly, districts that used Title I funds for professional development focused on standards accounted for 31 percent of Title I districts but 49 percent of students in Title I districts. Although the difference between Goals 2000 and Titles I and VI is less striking when looking at the percentage of students, it nevertheless appears that these two programs were less used for implementing standards compared with Goals 2000.

Exhibit IX-4
Extent to Which Districts Used Various Federal Program Funds "A Great Deal" for Professional Development Linked to Standards

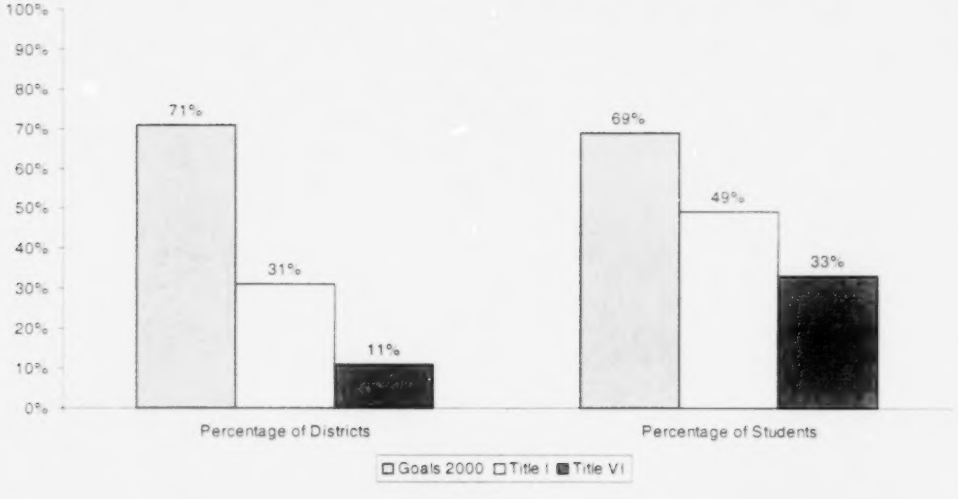

Exhibit reads: **Districts that reported using funds "a great deal" for professional development focused on standards accounted for 11 percent of Title VI districts and 33 percent of the students in Title VI districts.**

Consistent with the Goals 2000 emphasis on professional development, district Goals 2000 administrators coordinated with Title II administrators more than with any other federal program administrators. Two-thirds of Goals 2000 administrators had discussions with Title II administrators at least once per month. In addition, 64 percent combined Goals 2000 funds with Title II funds and almost all (95 percent) combined funds with state/local funds (probably the district general fund) to support professional development activities.

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School level resources used for developing and implementing standards

While Goals 2000 funds were not typically allocated to individual schools, they supported district-level strategies that influenced school-level decisions about their other resources, including whether or not to use resources to implement content or performance standards. Principals were asked about the importance of various strategies in school decisions about the use of resources from federal, state, local, and private sources. **Principals reported that the most important use of school resources from all funding sources was aligning curricula and instructional materials with content and performance standards** (Exhibit IX-5). The most common strategies were aligning curricula and instructional materials with content and performance standards (78 percent), linking professional development to standards (69 percent), implementing assessments linked to standards (66 percent), providing supplemental targeted academic services to students (66 percent), and expanding the use of technology (65 percent).

Exhibit IX-5
Strategies That Are of "Primary Importance" to Schools in Making Decisions About How to Use Their Resources

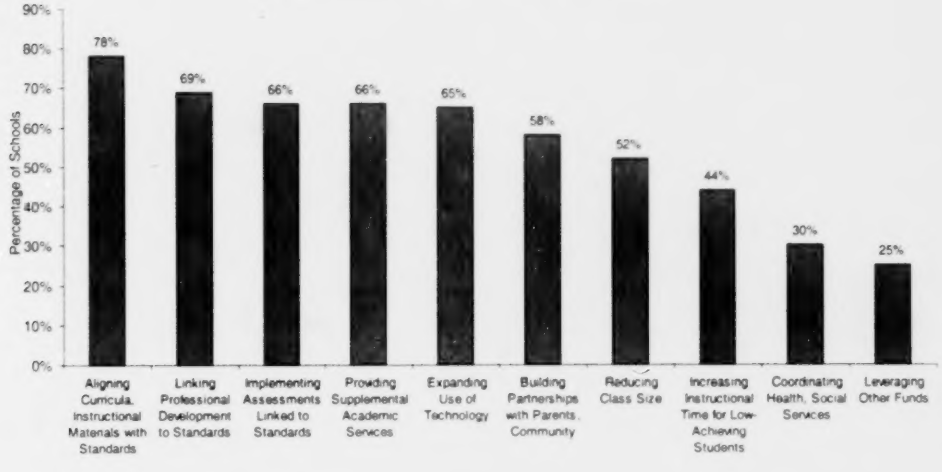

Exhibit reads: **In 78 percent of schools, aligning curricula and instructional materials with content and performance standards was of "primary importance" in making decisions about how to use school resources.**

Source: School Questionnaire

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Decisionmaking concerning the use of Goals 2000 funds

Control of decisions

According to district Goals 2000 coordinators, decisions about the use of Goals 2000 funds were made jointly by districts and schools in almost half the districts (44 percent) (Exhibit IX-6). The second most common scenario was for districts to make decisions, but with input from schools (29 percent).

Exhibit IX-6
Percentage of Districts Reporting District, School, or Joint Control of Decisions Concerning the Use of Goals 2000 Funds

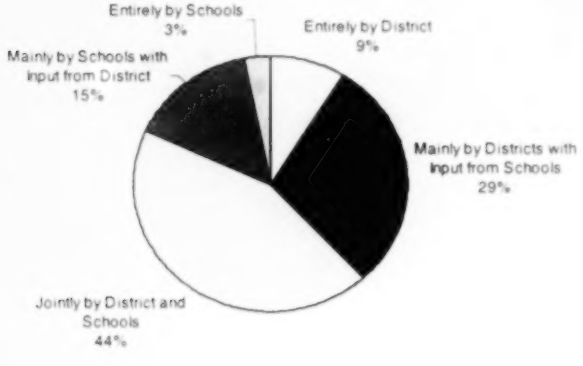

Exhibit reads: **Forty-four percent of districts reported that decisions about the use of Goals 2000 funds are made jointly by district and schools.**

Source: District Questionnaire

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Involvement in decisions

When asked about who makes decisions concerning the use of Goals 2000 funds, district Goals 2000 coordinators were given three possible roles for each constituent: primary decisionmaker, significantly involved in decisions but not primary decisionmaker, or minimally or not involved. Each category could have only one of these roles, but there could be multiple primary decisionmakers. **Within districts and schools, the constituents most often reported as primary decisionmakers were the district Goals 2000 administrator (56 percent) and district curriculum and instructional administrators (42 percent)** (Exhibit IX-7). School-level administrators and teachers were somewhat less likely to be primary decisionmakers (33 percent and 26 percent, respectively). Other categories such as school boards and parents tended not to be primary decisionmakers regarding Goals 2000 funds.

Exhibit IX-7
Primary Decisionmakers Concerning the Use of Goals 2000 Funds, as Reported by Districts

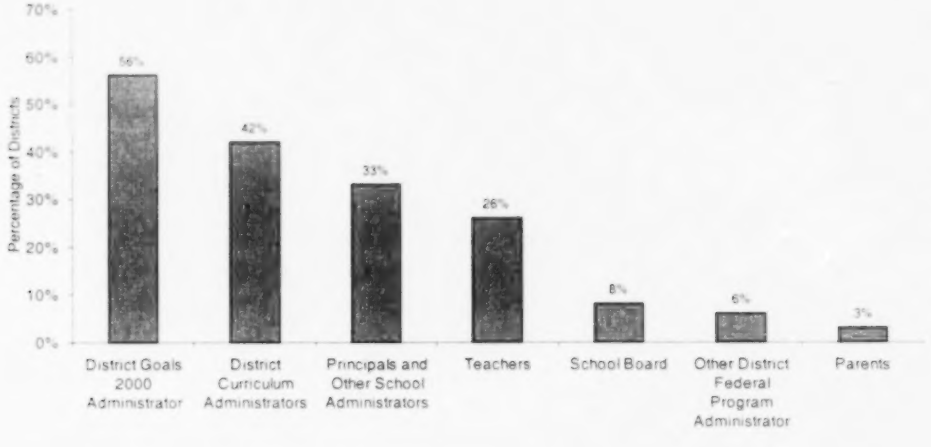

Exhibit reads: **Fifty-six percent of district Goals 2000 coordinators reported that they were the primary decisionmakers in determining how Goals 2000 funds are used.**

Source: District Questionnaire

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Factors that influence decisions about the use of Goals 2000 funds

Because the Goals 2000 program is intended to provide support for systemic reform, the funds should help the district and schools implement state and local standards. Districts reported the extent to which state policies, district plans, school priorities and parent priorities influenced decisions about the use of Goals 2000 funds. Almost three-fourths of districts (71 percent) reported that the long-term district plan was extremely influential in making decisions (Exhibit IX-8). **State policies and school priorities figured almost equally and were extremely influential in only half the districts (54 percent and 51 percent, respectively).**

Exhibit IX-8
Priorities That are "Extremely Influential" in Deciding How to Use Goals 2000 Funds

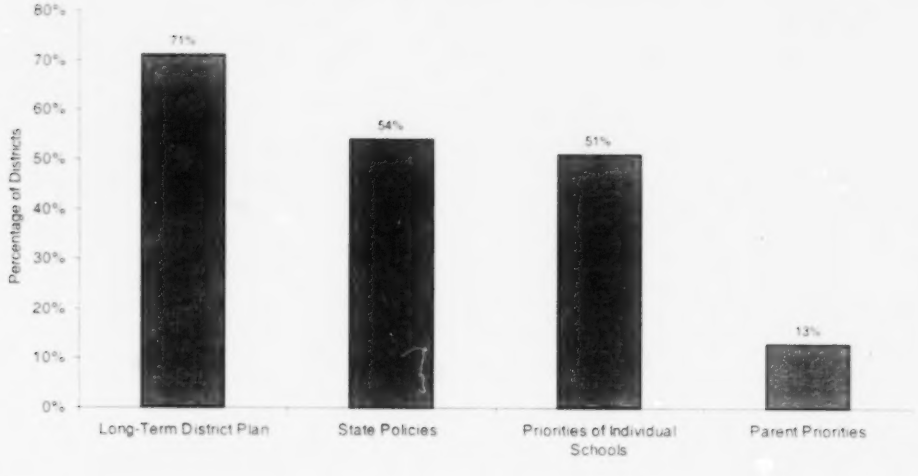

Exhibit reads: **Almost three-fourths (71 percent) of districts reported that long-term district plans were extremely influential in deciding how Goals 2000 funds are used.**

Source: District Questionnaire

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In the last decade, policymakers and the public have been calling for more accountability by schools and districts. There is a hope that student performance data will both reflect and drive education reform efforts. **Over half the districts (56 percent) reported that student performance data was extremely influential in making decisions about the use of Goals 2000 funds (Exhibit IX-9).** Local program evaluations are another source of data that can reflect and drive education reform. In a third of the districts (34 percent), local program evaluations were extremely influential in making decisions concerning the use of Goals 2000 funds, as was research showing that particular whole-school reform program models work well.

Exhibit IX-9
Factors That are "Extremely Influential" in Deciding How to Use Goals 2000 Funds

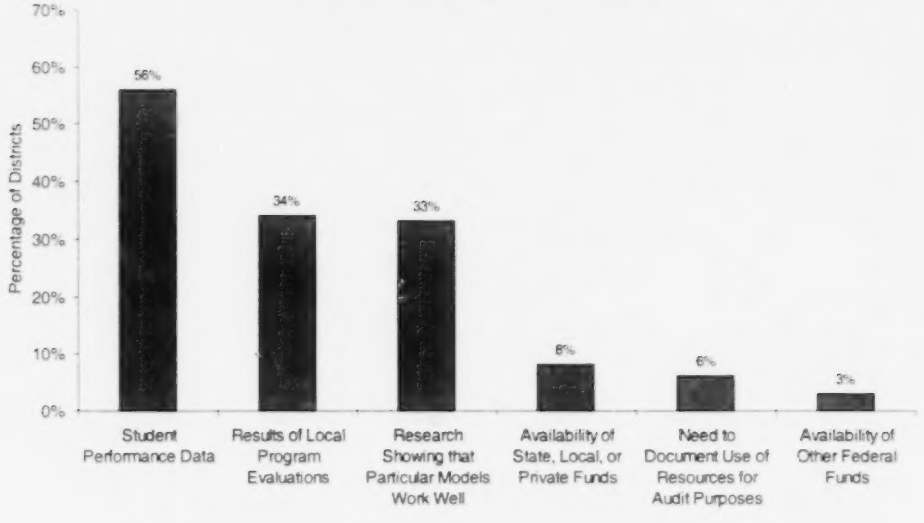

Exhibit reads: **In 56 percent of districts student performance data is extremely influential in making decisions about how Goals 2000 funds are used.**

Source: District Questionnaire

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Summary

The Goals 2000 program provided $476 million in FY 1997 funds to promote systemic educational reform. Districts most commonly used Goals 2000 funds for activities related to implementing state or district content or performance standards—a finding consistent with the purpose of Goals 2000. Most districts used Goals 2000 funds "a great deal" to aid teachers in implementing standards by providing professional development linked to standards. The most common professional development topics supported by Goals 2000 funds were district or state content or performance standards and enabling students to meet state or district proficiency standards. Schools reported that they use funds in ways that are consistent with the Goals 2000 program. They considered aligning curricula and instructional materials with content and performance more than any other strategy when they make decisions concerning the use of school resources.

Goals 2000 administrators and district curriculum and instructional administrators were the primary decisionmakers when it came to determining how to allocate and use Goals 2000 funds. Nonetheless, decisionmaking was collaborative: almost half of district Goals 2000 coordinators reported that decisions about the use of funds were made jointly by districts and schools. Consistent with education reform policy and Goals 2000's emphasis on school accountability, more than half the districts reported that student performance data was "extremely influential" in making decisions about the use of Goals 2000 funds.

Chapter X

Title VI Innovative Education Program Strategies

The Title VI program provided $310 million in FY 1997 funds to support innovative educational strategies. Funds may be used for activities that fall into the following eight areas: technology related to implementing reform; acquisition and use of instructional and educational materials, including library materials and computer software; promising education reform projects such as magnet schools; programs for at-risk children; literacy programs for students and their parents; programs for gifted and talented children; school reform efforts linked to Goals 2000; and school improvement programs or activities authorized under Title I. Activities supported with Title VI funds must be consistent with Goals 2000 and the National Education Goals.

States must allocate at least 85 percent of funds to school districts. In the 1997-98 school year, funds and services were widely distributed to schools within each district and were generally not targeted to schools based on poverty or student achievement. Forty-three percent of districts provided funds or services to all schools in the district and another 25 percent of districts provided these resources to all schools or teachers wishing to participate in the program. Title VI programs were more closely coordinated with Title I programs than with any other federal program. Fifty-six percent of Title VI administrators had discussions with Title I administrators at least once per month. In addition, 42 percent of districts combined Title VI funds with Title I funds to support professional development activities.

Activities supported by Title VI

Uses of Title VI funds

While Title VI funds can be used to support promising educational reform efforts and innovation generally, traditionally funds have been used most often for acquiring instructional materials. In the 1990-91 school year, for example, 42 percent of school districts used Title VI funds for this purpose.[1] **In the 1997-98 school year, districts were even more likely to use Title VI funds to acquire instructional materials, including library materials and software** (Exhibit X-1). Fifty-eight percent of districts used funds a great deal for this purpose. Other common uses of Title VI funds were expanding the use of technology (39 percent) and providing supplemental targeted academic services (34 percent), which is consistent with one of the program's purposes—to meet the special educational needs of students at risk of failing.

Exhibit X-1
Percentage of Districts Using Title VI Funds "A Great Deal" for Various Purposes

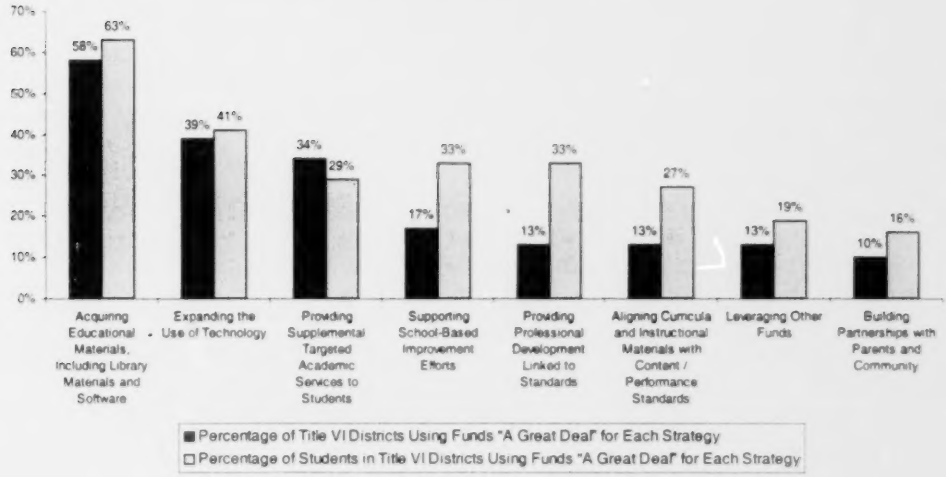

Exhibit reads: **Fifty-eight percent of districts used Title VI funds a great deal to acquire educational materials, including library materials and software.**

Source: District Questionnaire

[1] U.S. Department of Education, 1993, *Summary of Chapter 2 State Self-Evaluations of Effectiveness.*

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Despite its intent to support education reform efforts consistent with Goals 2000 and the National Education Goals, Title VI funds were less likely than either Goals 2000 or Title I funds to be used for activities related to implementing standards, such as aligning curriculum and instructional materials with standards (13 percent), or providing professional development linked to standards (13 percent). However, larger districts were more likely to use Title VI funds for standards-related activities—27 percent of the students were in districts that used Title VI funds for aligning curriculum and instructional materials, and 33 percent of the students were in districts that used Title VI funds for providing professional development linked to standards.

Larger districts also appeared to use Title VI funds more for professional development activities than did smaller districts. Although only 13 percent of districts used Title VI funds for professional development, these districts enrolled 33 percent of all students. District coordinators that used Title VI funds for professional development focused their activities more on standards than on any other topic (Exhibit X-2). Forty-four percent of districts funding professional development activities with Title VI funds supported activities that focused a great deal on district or state content or performance standards and 40 percent supported activities focusing on enabling students to meet proficiency standards. The next most commonly funded activities focused on building partnerships with parents and communities (37 percent) and curriculum or instruction in reading or language arts (36 percent). **Few districts (11 percent) used funds to support professional development activities focused on research-based whole school reform programs, despite the fact that implementing "promising educational reform programs" is specified as a Title VI purpose.**

Exhibit X-2
Focus of Title VI-Funded Professional Development Activities in Districts Using Program Funds for Professional Development: Percentage of Districts Focusing Activities a Great Deal on a Topic

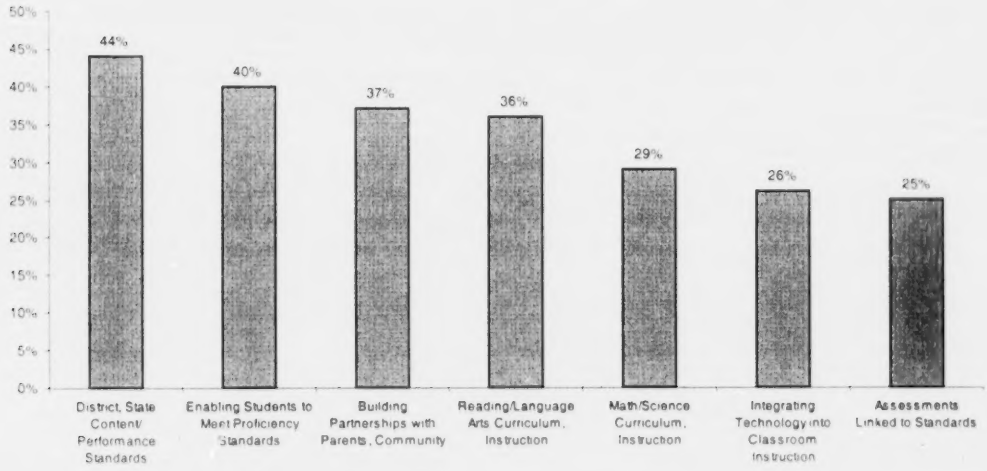

Exhibit reads: **Among districts that used Title VI funds were used for professional development activities, 44 percent supported activities that focused a great deal on *district or state content or performance standards.***

Source: District Questionnaire

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Decisions concerning the use of Title VI funds

Control of decisions

According to district Title VI coordinators, both schools and the district had input into decisions about the use of Title VI funds (Exhibit X-3). The most common scenario was for joint decisions (37 percent), followed by decisions made mainly by districts with input from schools (32 percent). Almost 25 percent of districts reported that schools either made decisions alone (11 percent) or mainly made decisions with input from districts (12 percent).

Exhibit X-3
Percentage of Districts Reporting District, School, or Joint Control of Decisions Concerning the Use of Title VI Funds

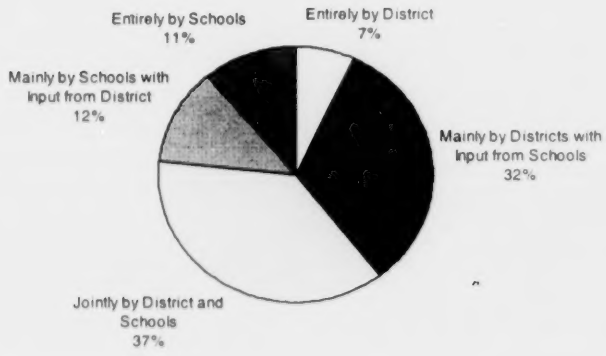

Exhibit reads: **In 37 percent of districts, decisions about the use of Title VI funds were made jointly by the district and schools.**

Source: District Questionnaire

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Involvement in decisions

Looking at the role of various decisionmakers confirms the finding that Title VI decisions are made at both the district and school levels. District Title VI coordinators were given three possible roles for each category: primary decisionmaker, significantly involved in decisions but not primary decisionmaker, or minimally or not involved. Each constituent could have only one of these roles, but several could be considered primary decisionmakers. **Title VI coordinators are most often the primary decisionmakers, but they held this role in fewer than half the districts (41 percent) (Exhibit X-4). Principals and other school administrators are the next most influential (33 percent).** District curriculum administrators and teachers are the primary decisionmakers in 31 percent and 25 percent of districts, respectively.

Exhibit X-4
Primary Decisionmakers Concerning the Use of Title VI Funds, as Reported by Districts

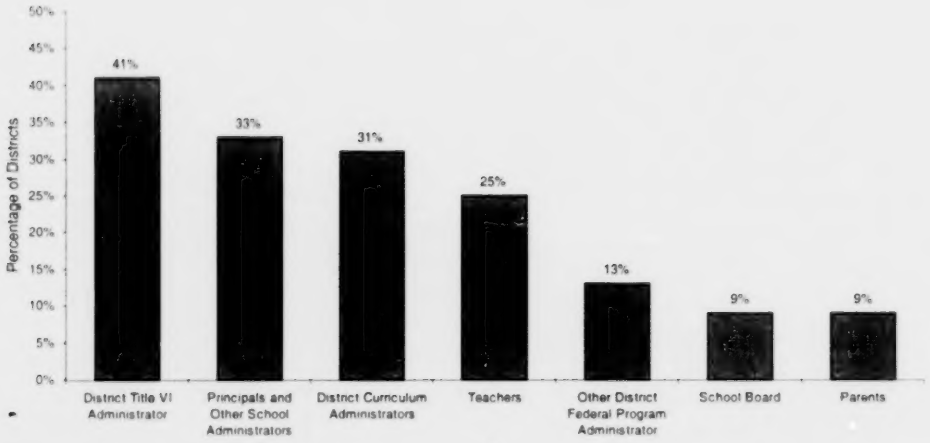

Exhibit reads: **Teachers were the primary decisionmakers in determining how Title VI funds are used in 25 percent of districts.**

Source: District Questionnaire

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Factors that influence decisions about Title VI programs

Consistent with Title VI's intent to support local innovation, districts most often reported long-term district plans and priorities of individual schools as extremely influential priorities in making decisions concerning the use of Title VI funds (Exhibit X-5). Only 21 percent reported that state policies were extremely influential.

Exhibit X-5
Priorities That were "Extremely Influential" in Deciding How to Use Title VI Funds

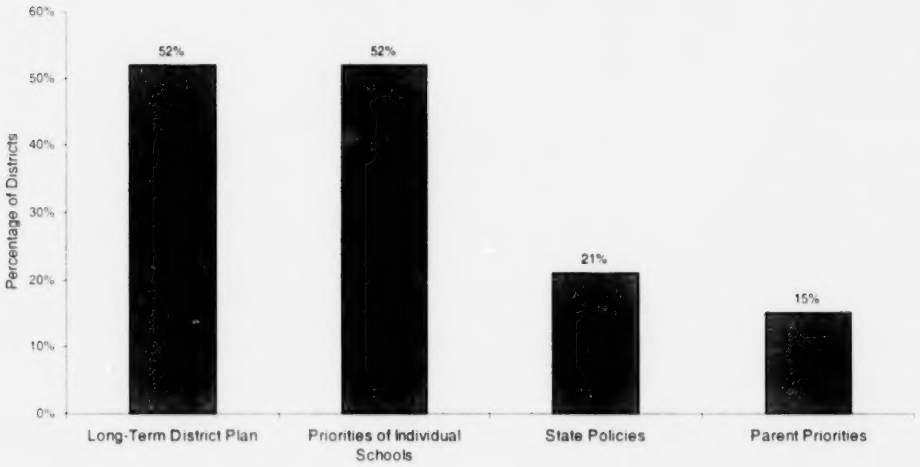

Exhibit reads: **Long-term district plans and priorities of individual schools were both reported as "extremely influential" in making decisions about how Title VI funds were used in 52 percent of the districts.**

Source: District Questionnaire

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Districts can use a variety of data sources to determine how Title VI funds should be used to improve student achievement. **Student performance data was the factor most often reported as extremely influential in making decisions concerning the use of Title VI funds, even though it was done in only a quarter of the districts (28 percent) (Exhibit X-6).** Research showing that particular program models work well was extremely influential in almost as many districts (24 percent).

Exhibit X-6
Factors That were "Extremely Influential " in Deciding How to Use Title VI Funds

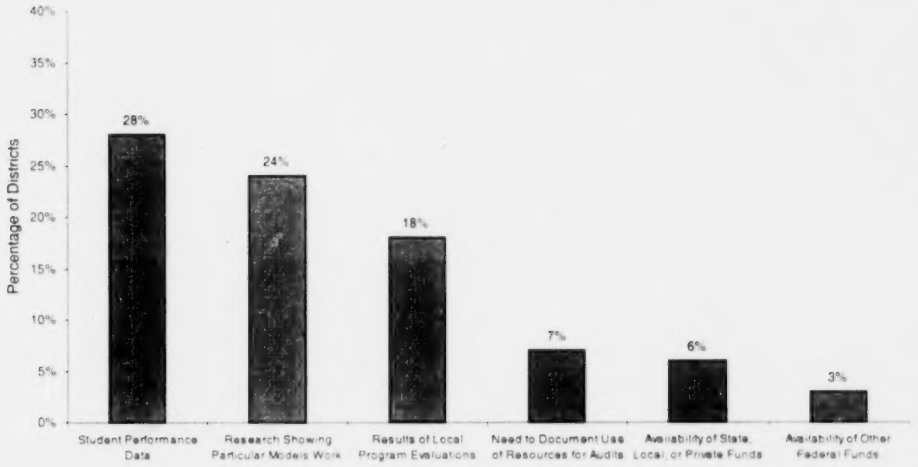

Exhibit reads: **In 28 percent of districts, student performance data was extremely influential in making decisions concerning the use of Title VI funds.**

Source: District Questionnaire

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Summary

The Title VI program provided $310 million in FY 1997 funds to support innovative educational strategies. Title VI funds were predominantly used to acquire educational materials, including library materials and software—58 percent of districts used funds "a great deal" for this purpose. The second and third most common uses of Title VI funds were expanding the use of technology (39 percent) and providing supplemental targeted academic services (34 percent). These uses are consistent with one of the program's primary purposes—to meet the special educational needs of at-risk students.

Larger districts used Title VI funds more for professional development activities than did smaller districts. Although use of these funds for professional development appears to be limited to 13 percent of the districts, the professional development topics supported by the funds are consistent with program goals.

Title VI coordinators were most often the primary decisionmakers concerning the use and allocation of Title VI funds. However, they held this role in fewer than half the districts. Long-term district plans and priorities of individual schools were "extremely influential" priorities in making decisions about the use of Title VI funds. This finding is consistent with Title VI's intent to support local innovation. A quarter of districts cited student performance data and research showing that particular program models work well as factors that were "extremely influential" in making decisions about the use of Title VI funds.

Chapter XI

Safe and Drug-Free Schools and Communities

Title IV, the Safe and Drug-Free Schools and Communities program, provided $531 million in FY 1997 funds to help prevent violence in schools and the use of alcohol, tobacco, and drugs by youth. Of these funds, 80 percent ($425 million) were allocated for State and Local Agency Programs, which primarily provide funds to school districts. The remaining funds are administered by governors' offices ($106 million in FY 1997) and are used primarily to serve children and youth not normally served by school districts and populations that need special services, such as runaway or homeless children, dropouts, teen parents, and youth in detention facilities; this portion of the Title IV program is not included in this study.

Title IV funds provided to school districts support a broad range of programs and resources that include, but are not limited to, the following: programs which emphasize students' sense of individual responsibility and that are related to drug prevention, comprehensive health education, early intervention, pupil services, mentoring, or rehabilitation referral; programs to prevent violence that include activities designed to help students develop a sense of individual responsibility and respect for the rights of others, and to resolve conflicts without violence; "safe zones of passage" for students between home and school; metal detectors and security personnel; professional development for teachers related to violence prevention; the promotion of before- and after-school recreational, instructional, cultural, and artistic programs.

Districts generally did not target funds to particular schools. Three-quarters of districts (74 percent) supported programs that involved all schools in the district, and most of the other districts (21 percent) supported programs that involved schools wishing to participate. Title IV administrators coordinated with other federal program administrators to some extent, most commonly with Title VI and Title I administrators. Forty percent reported having discussions with Title VI coordinators at least once a month, and 37 percent reported the same frequency of discussions with Title I coordinators.

Activities supported by Title IV

District uses of Title IV funds

Districts most frequently use Title IV funds for strategies that affect student attitudes. Eighty-three percent of districts reported using Title IV funds a great deal to affect student attitudes related to drug use or violence (Exhibit XI-1). In addition, 37 percent of districts emphasized reducing bias-related incidents and improving student attitudes related to bias and prejudice, and 58 percent worked to address the needs of students at high risk for drug use or violence.

Districts also used Title IV funds to strengthen school communities. About half (47 percent) used funds a great deal to improve staff knowledge and skills for preventing violence and use of alcohol, tobacco, and other drugs. Building partnerships with parents and the community was emphasized by 26 percent of districts, and this strategy was more common in large districts; 44 percent of students were in those districts. Improving discipline in classrooms or throughout schools was emphasized in 19 percent of districts.

Districts were less likely to use Title IV funds for physical security measures. Only 4 percent used the funds to improve school security or provide safe zones of passage to and from school. Similarly, only 7 percent used the funds to provide safe havens through before-school or after-school programs. **Given that the program imposes a twenty percent cap on the amount that each district can use for security hardware and personnel, it is not surprising that few districts used funds for physical security measures.** However, large districts were more likely to use Title IV funds for these purposes. Districts that emphasized using Title IV funds to improve school security or provide safe zones of passage accounted for 11 percent of students, and those that emphasized creating safe havens before or after school accounted for 18 percent of students.

Exhibit XI-1
Percentage of Districts Using Title IV Funds "A Great Deal" for Various Purposes

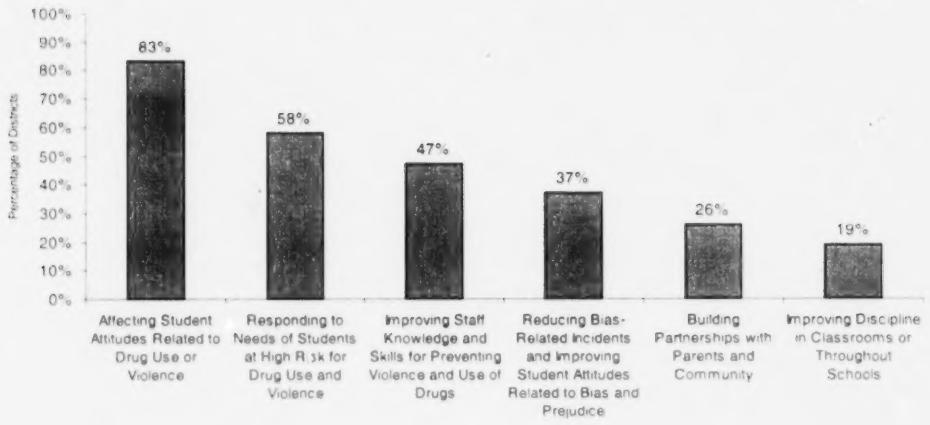

Exhibit reads: **Eighty-three percent of districts used funds a great deal for *affecting student attitudes related to drugs or violence.***

Source: District Questionnaire

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To promote safe and drug-free schools, districts can use funds to help teachers learn how to support students in this effort. **More than half of districts (53 percent) used funds for professional development activities focused "a great deal" on preventing alcohol, tobacco, and other drug use and violence among students (Exhibit XI-2).** A third of all Title IV districts (36 percent) used funds to help teachers use student data to inform school decisions about drug and violence prevention. A quarter of all districts used funds for professional development activities that were focused "a great deal" on building partnerships with parents and communities. This use of funds was even more common in large districts. Forty percent of students were in districts that focus "a great deal" on this topic.

Exhibit XI-2
Percentage of Districts Using Title IV Funds to Support Professional Development Activities Focused "A Great Deal" on Various Topics

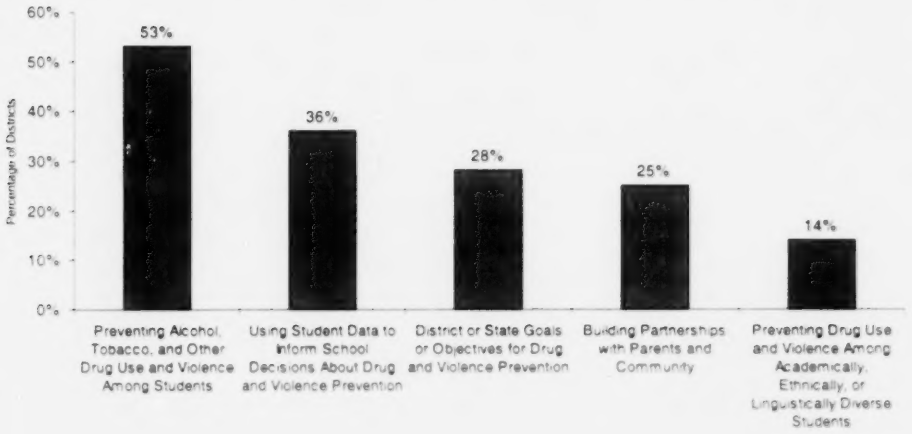

Exhibit reads: **Over half of districts (53 percent) focused Title IV professional development activities a great deal on *preventing alcohol, tobacco, and other drug use.***

Source: District Questionnaire

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Districts also used Title IV funds to support student participation in activities intended to prevent drug use and violence. **Three-quarters of districts (74 percent) used funds to allow students to attend specialized training such as peer mediation (Exhibit XI-3).** Fifty-seven percent of districts used Title IV funds to support teaching students how to serve as instructors or peer leaders in school-based projects related to drug and violence prevention. Title IV funds supported student participation in school committees, panels, or councils in 48 percent of the districts.

Exhibit XI-3
Percentage of Districts Using Title IV Funds for Student Participation in Various Activities

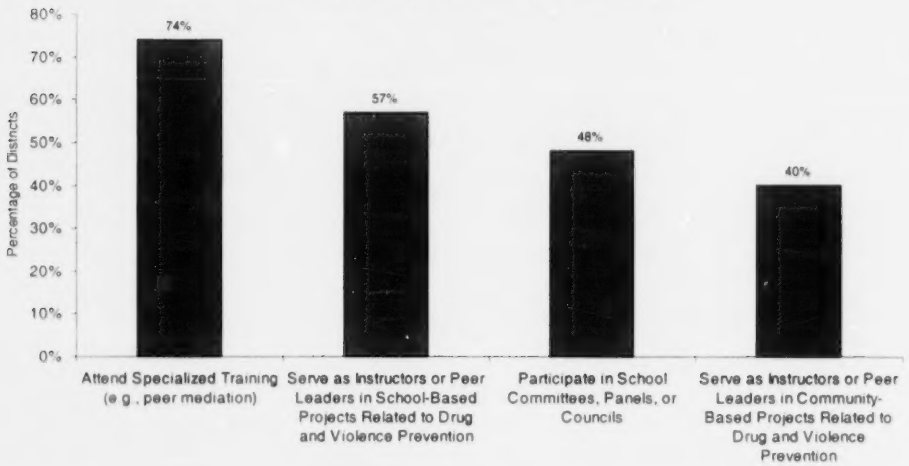

Exhibit reads: **Three-quarters of districts (74 percent) used funds to allow students to *attend specialized training such as peer mediation.***

Source: District Questionnaire

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Decisionmaking concerning the use of Title IV funds

Factors influencing decisions concerning the use of Title IV programs

In general, the use of Title IV funds was not strongly influenced by state, district, school, or parent priorities (Exhibit XI-4). **Fewer than half of districts considered priorities or plans "extremely influential" when making decisions concerning the use of Title IV funds.** Of the priorities or plans that could influence the use of Title IV funds, long-term district plans were extremely influential in the most districts (44 percent).

Exhibit XI-4
Priorities That are "Extremely Influential" in Deciding How to Use Title IV Funds

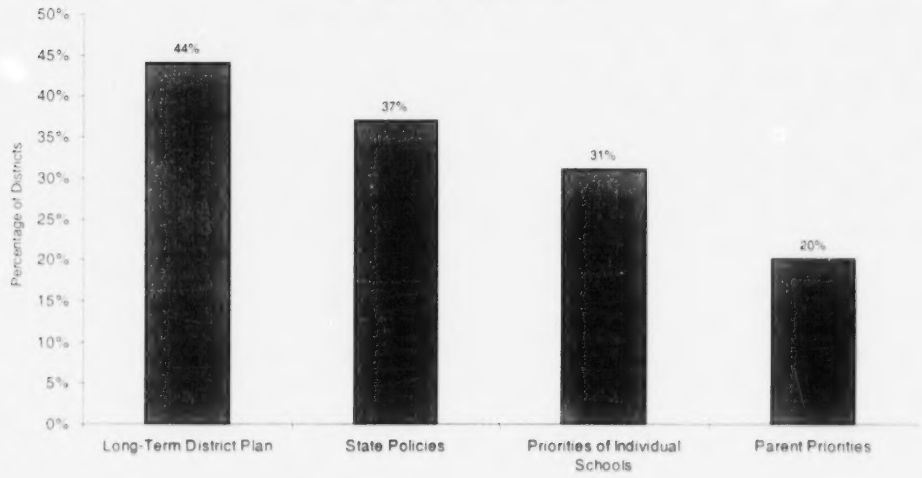

Exhibit reads: **In 44 percent of districts *long-term district plans* were extremely influential in making decisions about the use of Title IV funds.**

Source: District Questionnaire

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A variety of data sources can be used to help districts decide what programs or strategies to use to promote safe and drug-free schools and communities. **About half of the districts (52 percent) reported that rates of alcohol and drug use among school-age children were extremely influential in their decisions about how to use Title IV funds** (Exhibit XI-5). The next most influential factor was the number of incidences of violence and crime in schools (41 percent). In large districts, the rate of disciplinary problems was also a common factor in making decisions; 43 percent of students were in districts using discipline-problem rates to make decisions about the use of funds. Districts were less likely to rely on academic achievement data such as student dropout rates (24 percent) and student performance data (23 percent).

Exhibit XI-5
Factors That are "Extremely Influential" in Deciding How to Use Title IV Funds

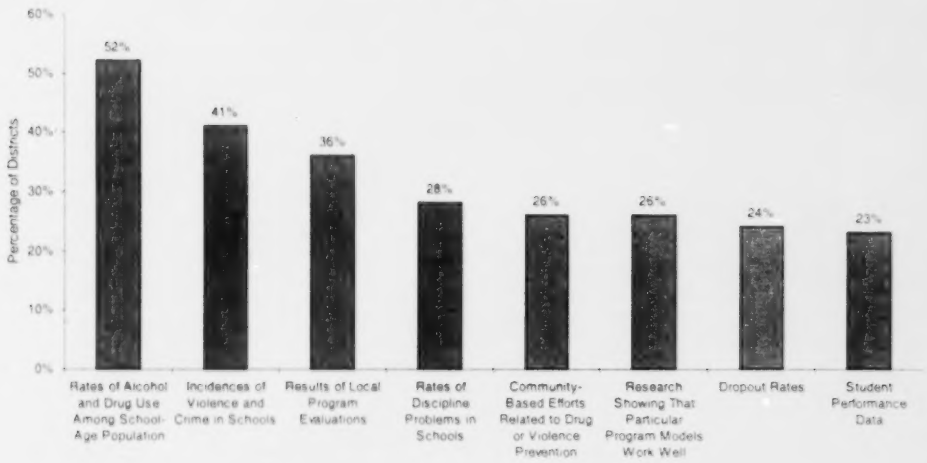

Exhibit reads: **In half of districts (52 percent),** ***rates of alcohol and drug-use among school-age children*** **were extremely influential in making decisions about the use of Title IV funds.**

Source: District Questionnaire

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Summary

Title IV provided $531 million in FY 1997 funds to help prevent violence in schools and to help prevent the use of alcohol, tobacco, and drugs by youth. The clear priority for districts was to use Title IV funds for strategies that affect student attitudes related to drug use and violence. Title IV funds were also used widely to support professional development activities. More than half the districts used these funds for professional development activities that were focused "a great deal" on preventing alcohol, tobacco, and other drug use and violence among students. Title IV funds also supported activities directly for students. Three-quarters of districts used Title IV funds to allow students to attend specialized training such as peer mediation.

State, district, school, and parent priorities did not have a significant influence on district decisionmaking related to the use of Title IV funds. However, of those constituencies, long-term district plans were most often reported as being "extremely influential" in making such decisions. Half the districts reported rates of alcohol and drug use among school-age children being extremely influential in their decisionmaking, while 40 percent reported incidences of violence and crime in schools as a factor.